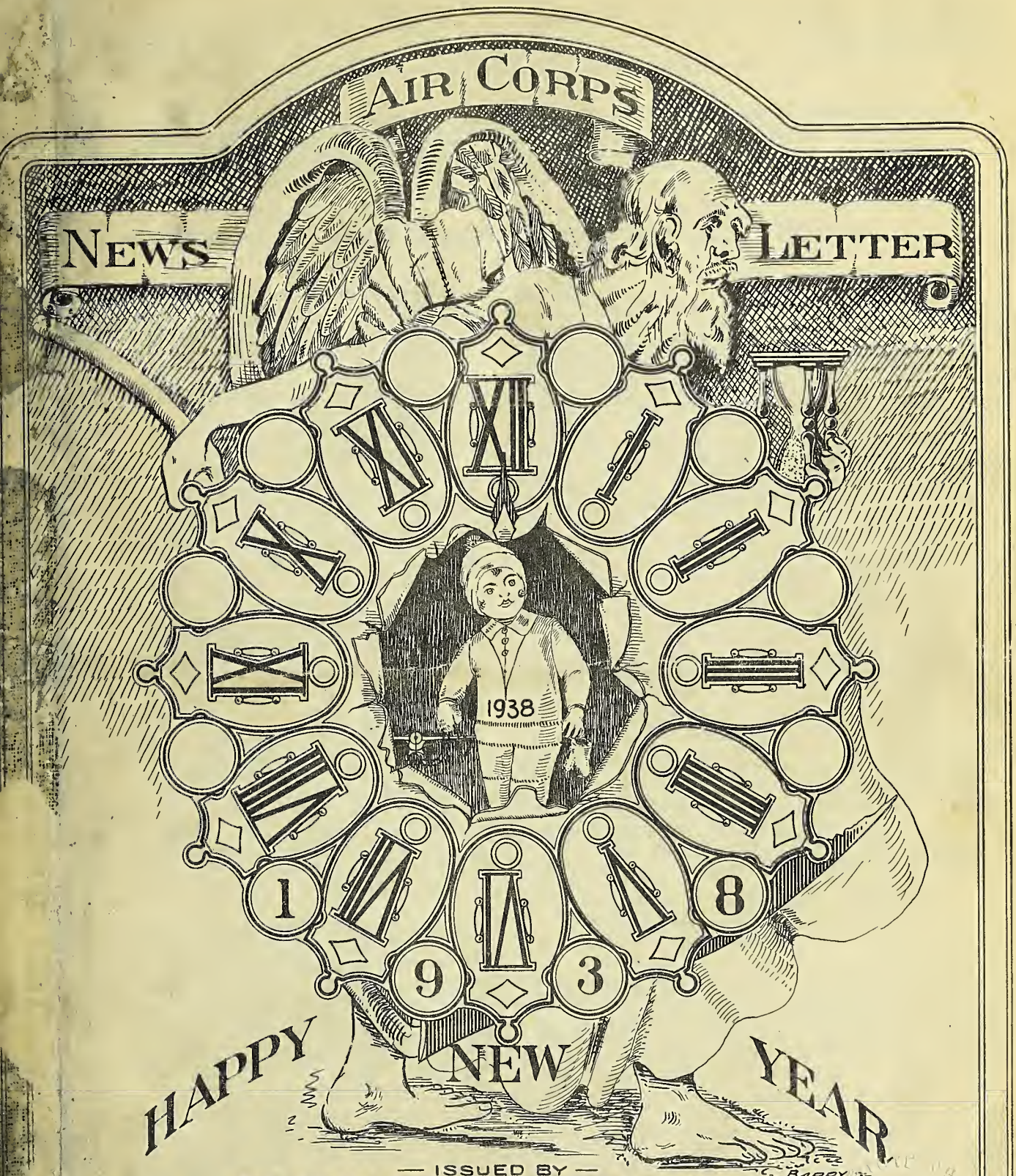

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AIR CORPS NEWS LETTER



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VOL. XXI A I R C O R P S N E W S L E T T E R NO. 1.

Information Division
Air Corps

January 1, 1938

Munitions Building
Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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SECRETARY OF WAR EXPRESSES NEED FOR BALANCED AIR CORPS PROGRAM

In a letter of November 3, 1937, to the Hon. Harry H. Woodring, Secretary of War, Mr. Charles F. Horner, President of the National Aeronautic Association, stated:

"Many of our members have asked me as President of the National Aeronautic Association how our organization may aid the War Department in accomplishing its aviation program.

"The National Aeronautic Association is a non-profit organization, national in character and scope, as its name implies, having chapters in every state. It is non-political and derives no support from any branch of the government. We believe that our organization, and our membership as individuals, may aid the Army considerably toward a realization of its plans for our national air defense.

"I shall appreciate it, provided you agree with me in this belief, if you will advise me exactly what the Army's air program is in order that I may inform our chapters and membership accordingly. It is fully realized that certain phases or parts of your program may be confidential; it is hoped, however, that you can release enough of it to me so that we can aid you in securing the support of the people of the United States."

Expressing his appreciation for the offer of the cooperation with the War Department of the National Aeronautic Association and stating that it is most encouraging to know that organizations of this character may be depended upon for cooperation in matters so vital to the National Defense, Mr. Woodring, in a letter dated November 9, 1937, advised Mr. Horner that the Army Aviation Program is undergoing constant study; that future programs are now under discussion, and that he would take the matter up further with him later on.

In a letter of December 10, 1937, Mr. Woodring wrote Mr. Horner as follows:

"As indicated to you in my letter of November 9, 1937, further study has been given in an effort to provide a more detailed answer to your request for the Army Air Corps program.

"The following are some specific suggestions containing details of our program:

"a. The Army Air Corps is faced annually with procuring and training several hundred Flying Cadets at the Air Corps Training Center, Randolph Field, Texas. It is becoming increasingly difficult to obtain the necessary quota of Cadet applicants. I think this is due in no small degree to our lack of adequate facilities for a widespread publicity campaign to acquaint college graduates with what the Army Air Corps has to offer. Here is an opportunity for the college graduate to obtain one year's flying instruction at the finest flying training school in the world, plus the added inducement of one to five years active duty as a Reserve officer, with pay and allowances in grade. The Flying Cadet is paid $75.00 per month, is provided clothing, food and shelter while undergoing training. It seems to me that if every college graduate knew of this wonderful opportunity we would be flooded by more flying cadet applications than we could accommodate. I believe your organization can aid materially in acquainting this class of young men with the unusual opportunities available to it.

"b. The major portion of the present Air Corps problem may be divided into three parts:

Planes and accessory equipment;
Personnel; and
Ground installations and establishments.

The War Department has recently brought up to date studies showing what is needed in each of these categories to bring them to parity and to complete a balanced program. I am sure you will understand why it is not now possible to make this program public. First, it must be submitted in detailed estimates, and passed upon by the Bureau of the Budget and the President. When the President forwards to the Congress the Executive recommendations on these features, the National Aeronautic Association can aid materially by advising all inquirers of that program. In the mean time, it undoubtedly will aid materially for you to publicize among your members the fact that the War Department does have an up-to-date current program for an adequate air defense. I feel that much of the criticism which

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has been leveled at the War Department on the subject of aviation in the past, was because it was not generally known that we did have a completed program toward which we are working just as rapidly as funds are provided.

"(1) On the subject of aircraft, I advised you in my last letter that the War Department was endeavoring to supply a total of 2320 airplanes to the Army Air Corps by 1940; and that it is proposed to maintain that figure by an annual provision of about 400 planes of the most modern types.

"(2) On the subject of accessory materiel and equipment, it is evident that there must be an increase in operating funds and in funds for the procurement of accessories, such as engines, plane and engine instruments, navigational equipment, and armament commensurate with this increase in plane strength.

"(3) With reference to personnel, it is not now possible to provide additional personnel for the Air Corps, but remedial legislation has been recommended to ameliorate this serious situation.

"(4) Concerning ground installations and establishments, they, too, are being provided for in our estimates. Obviously, since these buildings, flying fields, and air bases and installations are very expensive, they can not be provided at one time, but must come in properly balanced increments as the planes are supplied.

"c. One very important sub-division of military aviation concerns experimental development. If our experimental program be not adequate and up-to-date this year, our airplane procurements for years to come must be adversely affected; whereas in past years our experimental program had led the world, several other nations are now spending vast sums on aeronautical experimentation and, unless we can continue to provide ample funds for our Materiel Division at Wright Field, there is grave danger that we may be left behind, may lose our present preeminent position. This is vital, and your organization can do much to make this point clear to your members and those with whom they come in contact and over whom they exert a wholesome influence.

"d. I feel that a section in my annual report dealing with aviation outlines succinctly some essentials on the subject of military aviation which I may well quote to you in this connection.

"'It should be borne in mind that modern aircraft cannot be quickly improvised. The construction of airplanes necessarily takes considerable time. Hence, our peacetime strength should approximate rather closely our requirements in war. Furthermore, in a major war our air arm would probably be engaged almost immediately on the opening of hostilities. Therefore, it is desirable that it be practically on a war footing in time of peace.'

"I wish again to thank you for your offer of assistance to us. I agree fully that your organization, a nationally known, non-partisan group, composed of patriotic men and women can do much to help us realize our aims for national defense by making our program known to our people."

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ARMY AIR CORPS BUYS PURSUIT AIRPLANES

The Assistant Secretary of War, Hon. Louis Johnson, announced on December 11, 1937, the award to the Curtiss Division of the Curtiss-Wright Corporation of Buffalo, New York, of a contract for a service-test lot of thirteen P-37 Pursuit airplanes and the necessary spare parts, amounting in all to $531,305.12.

The Curtiss P-37 is an all-metal, low-winged single-engined, single-seater monoplane. It is similar to the Curtiss P-36 Pursuit, of which this Company is now building 210 for the Army Air Corps, except that it is designed for a liquid-cooled instead of an air-cooled engine with which the P-36 is powered. This change in power plant and numerous other minor improvements in streamlining and structural design have made possible a further improvement in the flying characteristics so satisfactory in the airplane of which this is an improvement.

The airplane is provided with an inclosed cockpit, a steerable tail wheel, flaps (sometimes known as airbrakes), landing gear retractable into the wings, and all the other latest devices developed by American aeronautical designers to improve its flying characteristics. These developments are expected to produce in this airplane speeds considerably in excess of 300 miles per hour, high rate of climb, and great maneuverability when compared to other aircraft of comparable speed.

When completed, these airplanes will be delivered to a combat unit of the Air Corps for thorough testing.

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LANGLEY AIRMEN FLY TO BARKSDALE AT NIGHT

Captain Carl B. McDaniel, of the 96th Bombardment Squadron, Langley Field, Va., with a regular combat crew in a B-17 Bombardment airplane which included Staff Sergeants Harry W. Sichard, George Billy and Private 1st Class John Shealey, of the same Squadron, accomplished a night flight to Shreveport, La., and return on November 30th.

No landing was made at Shreveport, and the total time of the flight was 12 hours and 10 minutes. Excellent weather prevailed during the entire flight.

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THE GENERAL HEADQUARTERS AIR FORCE

A Review of 1937 and New Year's Message

By Major General Frank M. Andrews,
Air Corps, U. S. Army.

Two outstanding accomplishments have made 1937 noteworthy for the GHQ Air Force. They are: first, the clarification of and substantial progress toward the perfection of the Air Base system; and, second, the successful service test and universal acceptance of the B-17 as the prototype of the future basic element of our Army Air Force,- the heavy load, long endurance, high speed, multi-engined Bomber.

Prior to the formation of the GHQ Air Force in March, 1935, each Air Corps station was organized and administered primarily as a peace time home for its units. Field exercises and maneuvers were comparatively infrequent, and when held required the formation of provisional command and staff set-ups, provisional groupings of units, and the improvisation of a system of maintenance and supply.

Recognition, definition and initial impetus of the necessity for air bases were made official by that splendid document, TR 440-15, issued by the War Department over the signature of our Chief of Staff, General Malin Craig, on October 15, 1935. Development and perfection of the details of air base operation required thought and time, and much trial and error. Initial mistakes were rectified, and the soundness of the present system was proved in the GHQ Air Force maneuvers in California in the spring of 1937. Major General George S. Simonds, Commanding the Fourth Army and Ninth Corps Area, and appointed for those maneuvers as the special representative of the Secretary of War, complimented the efficiency of the GHQ Air Force Air Base system of supply and service. General Simond's long experience in such matters and the high professional regard in which he is universally held lend great weight to his opinions. His praise was a source of extreme gratification to all echelons of the GHQ Air Force. My thanks and appreciation go from the heart to those officers and enlisted men who worked hard to overcome the inertia of the outmoded system with which they were familiar, and who put across the new system, so necessary to the operations in the field of a modern air force.

What is this air base system? It is simply an organization for war on functional lines. The combat units are responsible for combat operations with a minimum of responsibility for administration, supply and service. The air base, comprising as it does a large area, is primarily responsible for supply, maintenance and service for the combat units, with a minimum of responsibility for operation. In time of war or field exercises or maneuvers, the air base comprises the home station and all occupied auxiliary airdromes within a radius of approximately 200 miles, served by the Headquarters and Air Base Squadron assigned to that air base. In garrison, the air base shrinks to include only the home station, and sub-stations, if any. Thus an air base is flexible in extent, and varies according to the situation, from the home station alone to the home station, sub stations and all auxiliary airdromes served by the air base squadrons, augmented when necessary by air base squadrons or parts thereof from other stations not active at the moment.

A few details are yet to be solved, but in the main the present system is satisfactory, and I believe it to be the only system which can make integral and cohesive combat units truly mobile, and can insure a practical application of the theory that "the impetus of supply is from the rear."

Memories are notoriously short, but reflection will remind us that one short year ago the modern four-engined Bomber, exemplified by the B-17 Bombardment airplane, was under fire. It was thought to be "too much airplane" for Air Corps personnol,- unnecessarily large, costly and complex.

During the past year, GHQ Air Force personnel have proved beyond question by thousands of hours in all weather and by the dropping of thousands of bombs at maneuvering and stationary targets, that the four-engined, heavy load, high performance Bombardment airplane is not only valuable but necessary if the GHQ Air Force is to execute the role that will fall to it in the event of war. The trend is toward still larger Bombers of equal or better performance, and within a short time I am certain the B-17 will be considered a small airplane.

In addition to the outstanding progress in the development of the Air Base system and the proving of the modern Bomber, my New Year's message would be incomplete without mention of the reduction in accident rates; the improvement in gunnery by Pursuit and Attack units; and the perfection and extension of the science of navigation by reconnaissance and Bombardment units.

To all personnel, officers and enlisted, of the GHQ Air Force; to the Materiel Division and other agencies of the Chief of the Air Corps, and to the arms and

(Continued on Page 4.)

THE AUTOMOBILE - AIRCRAFT SHOW AT MARCH FIELD
By the News Letter Correspondent

With "Pea-Shooters," broad-winged Bombers, sleek Attack planes, shiny new automobiles and colored searchlights and anti-aircraft equipment being displayed, the March Field "Line" became a crowd-thronged midway November 12, 13 and 14, as the second annual Automobile-Aircraft Show was staged. The show was sponsored by the Riverside, Calif., Chamber of Commerce.

The show was officially opened at 1:00 p.m., November 12th, following a luncheon at the Officers' Club which was attended by business men of Riverside, executives of the Santa Fe Railway, movie stars from Universal Studios and officers of March Field.

Colonel John H. Pirie, Post Commander, gave the opening address of welcome over the specially installed loud speaker system loaned by the Standard Oil Company of California, and supervised by Major Edward Martin, Post Chaplain. Major Early E.W. Duncan, March Field Public Relations Officer and officer in charge of the show, introduced Mayor William E. Evans, of Riverside, who officially accepted Colonel Pirie's welcome. The Reveille Guns sounded, and the show was on.

Two of the large hangars on both sides of the Headquarters building were given over to the automobile displays (which were duplicates of the Los Angeles Automobile Show). In a third hangar there was a display of trailers, accessories and anti-aircraft equipment. On the March Field railway tracks stood a new streamlined coach and diner of the Santa Fe Railway, open for inspection.

Each of the three days saw regularly scheduled flying by the 19th Bombardment Group, the 17th Attack Group, and three P-26's from Barksdale Field, La., flown by Lieuts. Landry, Lessig and Keith. The aerial events were scheduled for both afternoon and evening.

During the afternoon shows, six Bombers from the 19th Group, led by Captain Ferris and Lieut. Boyd, flew in various formations and passed in review low over the long line of people on the north edge of the mat. Next came the "Three Mosquitos," led by Lieut. Landry, who sent their P-26's through thrilling maneuvers which were climaxed with screaming power dives that had people instinctively buckling their legs despite the fact that the planes always maintained a safe altitude. The final event of the aerial show was the flying by 18 airplanes from the 17th Attack Group, led by Major Mallory, Captain Lawson and Lieut. Terrill. Flying in close formation, they passed in review and then laid smoke screens over the south side of the field. The planes, flying very low, then penetrated the screen in a simulated attack on advancing infantry.

During the evening shows, only airplanes of the 19th and 17th Groups participated. Phantom-like they circled the field unseen until the huge searchlights of the 63rd Coast Artillery opened up, riddling the sky with bright, vari-colored lights which outlined whole formations. As a climax to the evening shows, the Attack planes dropped parachute flares and landed by them.

All events were described over the broadcast system by Majors Early Duncan, Victor Strahm, John Cannon and Edward Martin. Celebrities, who visited the show as guests and sponsors, were introduced from the reviewing stand by Major Duncan. During each show, the Post Commandant greeted the visitors over the broadcast system.

Sunday, November 14th, which saw the largest attendance, an almost unruly crowd of nearly 30,000 people had as added attractions exhibitions by the Motorcycle Squad of the Los Angeles Police Department, the Riverside Drum and Bugle Corps, and the presence of such film celebrities as Freddie Bartholomew, James Stewart, Virginia Grey and William Weldman. Freddie Bartholomew wanted to ride one of the motorcycles, but later said he would rather "just watch" the Pursuit planes.

Sunday night, after the last patron had departed and the darkened streets seemed unusually quiet in the absence of multiple laughter and the excited chatter of thousands of voices, single footsteps echoed hollowly against the sides of the huge silent hangars. It was satisfaction and high pride in achievment walking rampant over everything. An important phase in the value of this annual show is the spirit of good will and good fellowship which it helps to promulgate between the personnel of March Field and the citizens of Southern California.

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The General Headquarters Air Force
(Continued from Page 3).

services of the War Department which have contributed to the past successful year, I extend my thanks and sincere wishes for an even more successful year to come.

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Personnel of Moffett Field, Calif., played hosts to personnel of TWA and United Air Line transports during a dense fog which covered the Bay Area on December 16, 1937. The commercial airmen spent two or three hours on the ground and took to the air late in the afternoon.

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FORESIGHT PAYS DIVIDENDS

According to the News Letter Correspondent from Pope Field, Fort Bragg, N.C., Major Edmund P. Gaines, of that post, is planning to apply to someone for a life-saving medal. It appears that several months ago the sum of $4,800 became available for repairing and painting the balloon hangar at Fort Bragg, and for other necessary repairs. All of this money was spent for materials, and additional funds not being available the projects were undertaken by utilizing the services of the enlisted men. The repairs to the balloon hangar included the installation of a new roof. When it is considered that this is really an airship hangar, almost 100 feet high, the difficulties and dangers which beset inexperienced personnel working at this height are manifest.

As a safety measure, Major Gaines procured from Scott Field a large airship inflation net and had it hung, double thickness, immediately below the roof trusses in the hangar. The size of this net can be appreciated when it is considered that it was large enough to be doubled and yet amply cover a space of 76 by 220 feet. With this safety net in place, the morale of the men working on the under side of the roof was high and they went merrily along with the work.

On December 10th, the net paid its first dividend. Private Charles E. Baker, 16th Observation Squadron, one of the best steel workers in the crew, lost his footing on the scaffolding under the trusses and plummetted into the net. He received only minor scratches and, none the worse for the incident, was back on the job the next day. Private Baker is now the recipient of many good natured jibes, which attest to his popularity, and what would have been a tragedy at this station resulted merely in a happily closed incident.

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MORE NAVIGATORS GRADUATE AT MITCHEL FIELD

Certificates of proficiency in dead reckoning and celestial navigation were presented to a group of eight officers of the Ninth Bombardment Group, Mitchel Field, N.Y., at Officers' Call on December 10th. Those receiving diplomas from Lieut. Colonel C.W. Connell, Group Commander, were: Major Ulysses G. Jones, Captains Joseph Smith, Milton M. Towner, 1st Lieuts. Emery S. Wetzel, Millard C. Young, Dwight Divine II, and Milton F. Summerfelt, Air Corps.

The graduation of these officers brings the total number of navigators trained by the Mitchel Field Navigation School, since its inception in August, 1935, to 33. Commenting upon the graduation of this class, Colonel Walter H. Frank, Base Commander, expressed himself as being pleased with the progress made toward training the Regular Army officers of the Ninth Group as navigators, and hoped that the day would soon arrive when the course could be made available to Air Reserves.

The course of instruction offered to the recent graduating class exceeded the usual three-month period devoted to classes, due to suspension of the school during maneuver periods when the services of the students were required elsewhere.

The highlight of the present class was the graduation flight from Mitchel Field to San Antonio, Texas, via the Gulf of Mexico. Two flights of two B-18's made the trip, the first flight extending from November 16th to 19th, and the second flight from November 30th to December 3rd. The purpose of the flights was to comply with the new GHQ Air Force directive which requires all new graduates to demonstrate their ability to navigate this flight before certificates of proficiency may be granted. Each B-18 carried two students who rotated in performing the duties of dead reckoning and celestial navigator.

The planes took off from Mitchel Field shortly after midnight and arrived at Jacksonville, Fla., for breakfast and servicing. From there the flight headed for Tampa, where it struck out on a 766 nautical miles water leg over the Gulf of Mexico to Corpus Christi, Texas, and from there to Randolph Field. After a stopover of one day at Randolph Field for maintenance, the return flight was made over the same route. Both legs over the Gulf of Mexico were flown during daylight, while the legs between Mitchel and Jacksonville were flown at night.

The flights were highly satisfactory in every respect, and particularly so from the navigation standpoint. Remarkable accuracy was attained by making celestial landfalls on Corpus Christi and on Tampa, which were the termini of the legs across the Gulf.

All position reports were transmitted over the SCR-187-A set to the Second Wing Station DF4 at Langley Field. Characteristic of the high performance of the radio communications was the promptness with which DF4 receipted for the plane's message that landing was being accomplished at Randolph Field.

Position reports were also rendered on schedule to Coast Guard stations lying along the route. Direct contact with the Coast Guard on the over water legs contributed considerably to the crew's peace of mind.

Weather conditions were most favorable for making celestial observations. Only on the Jacksonville-Mitchel Field leg of the second flight was there any departure from pre-flight plans. Here an

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NEW PILOTS FOR PHILIPPINE ARMY AIR CORPS

The first graduation exercises for the Philippine Army Air Corps were held on October 30, 1937, the following four officers graduating: Captain Basilio Fernando, 1st Lieuts. Oscar Sales, Edwin D. Andrews and 2nd Lieut. Pelagio A. Cruz. Each officer had the following amount of flying time upon graduation:

Captain Fernando - 254:20
Lieut. Sales - 427:05
Lieut. Andrews - 281:00
Lieut. Cruz - 402:35

President Manuel L. Quezon was the guest of honor and delivered the principal address. Ranking officers of the United States Army who were present were General Douglas MacArthur, Military Adviser of the Commonwealth of the Philippines; Major Generals Lucius R.Holbrook, Commanding the Philippine Department; John H. Hughes, commanding Fort William McKinley, and Brigadier General Evan H. Humphrey, Commanding Fort Stotsenburg.

Many other high ranking officers of the U.S. Army were also present, as were the following Philippine Army ranking officers:

Major Generals Paulino Santos, Chief of Staff; Basilio J. Valdes, Deputy Chief of Staff; Brigadier Generals Guillermo B. Francisco, Commanding General of First Regular Division, and Vicente Lim, Chief of War Plans Division.

These are the first Philippine Army flyers to graduate from the Philippine Army flying school. Five more will be graduated about March or April, 1938. All graduates were trained in flying by Lieuts. Hugh A. Parker and W.L. Lee, U.S. Army Air Corps, who are loaned to the Philippine Government for this purpose.

In connection with this program, Lieut. Parker was presented the Distinguished Service Star of the Philippines by President Quezon. Lieut. Parker had been ordered to the States, returning on the November transport. He had been on duty with the Philippine Army since May 16, 1936, and in this length of time had flown over 1,000 hours in Philippine Army airplanes, training Philippine Army pilots. He is being replaced by Captain Mark K. Lewis, Jr.

In addition to the four pilots mentioned above, who graduated on October 30th, the Philippine Army Air Corps has one officer who is a graduate of the Army Air Corps Training Center and the Army Air Corps Technical School. It has 13 advanced students and seven primary students who have soloed in Manila. In addition to this, there is one officer at Chanute Field at the present time studying aerial photography, who is also a graduate of the Air Corps Training Center. It has four officers at the Primary Flying School at Randolph Field who started training in July, 1937, and who are at the present time on the basic stage. From all reports, these students are doing satisfactory work.

The order awarding the Distinguished Service Star of the Philippines to Lieut. Parker is quoted below, as follows:

"MALACANAN PALACE
Manila
October 30, 1937

General Orders)
No. 1.)

1. For outstanding service to the Commonwealth of the Philippines, in a position of major responsibility, there is hereby presented to First Lieutenant Hugh A. Parker, Air Corps, United States Army, THE DISTINGUISHED SERVICE STAR of the Philippines. As Plans and Training Officer of the Air Corps Training Center, Philippine Army, and individual instructor of flying cadets, his services have been characterized by unusual efficiency and professional skill, unflagging enthusiasm, and outstanding results. His work has required incessant devotion to duty, a readiness and capacity to comprehend the particular requirements of Filipino students, and an ability to adjust technical instruction so as to overcome unusual difficulties. His accomplishments and examples have been an inspiration to every member of the Air Corps of the Philippine Army and a source of satisfaction to the Chief of Air Corps, the Chief of Staff, the Military Adviser, and the Commonwealth Government.

(Sgd.) MANUEL L. QUEZON,
Commander-in-Chief, Philippine Army."

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Navigators Graduate at Mitchel Field

(Continued from Page 5).

overnight delay was caused by severe icing conditions in the vicinity of Cape Hatteras.

The total distance covered by each flight was 3585.2 nautical miles. All navigators were enthusiastic over the training value of extended flights and felt that they served to instill a spirit of confidence difficult to develop on shorter flights.

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During the month of November, the 4th Observation Squadron, Luke Field, T.H., completed its most extensive training period during this fiscal year. Over 200 hours were flown by eleven pilots. Highlights of the month were one week's field training at South Cape; a goodly portion of aerial gunnery completed, and the activity of the Squadron Navigation School, which is well under way.

The Squadron just received a new BT-9, and all pilots are well pleased with its characteristics. It is to be used on liaison missions and artillery adjustments.

PERFORMANCES OF B-17'S EVOKE ENTHUSIASM

A B-17 Bombardment airplane, returning on December 6th from Miami, Fla., en route to Langley Field, Va., performed what one may call an interesting navigation mission. With bad weather and low ceilings reported along the entire route, fuel was conserved by cruising at a low speed and thereby making it possible to turn to any one of several possible alternate landing fields out of the area of bad weather. After flying for approximately an hour and a half, there was such a definite improvement in the weather that a normal cruising speed was made possible. The 975 miles of the inland route, via Savannah, Ga., was covered in 4 hours and 10 minutes flying time, or at a ground speed of 235 miles per hour.

This is no record or any attempt to accomplish anything other than a routine training flight, yet it shows definitely what the "Flying Fortress" can be expected to do.

The B-17 was commanded by Lieutenant Colonel Robert Olds, the combat crew comprising Major Edwin R. McReynolds, Captain Charles H. Caldwell and Lieut. Robert F. Travis, all of the Headquarters and Headquarters Squadron, Second Bombardment Group.

A few interesting facts regarding the "Flying Fortresses" may here be recorded. The first B-17 was delivered at Seattle, Wash., on March 1, 1937, and the twelfth and last B-17 on July 26, 1937.

Since delivery of the first article, the "Jeeps"* have flown 679,000 miles, or over 27 times around the world, or the equivalent of 141½ full twenty-four hour days in the air.

"With the B-17's performing better and better every day," asserts the News Letter Correspondent, "combat crews are enthusiastic and elated over the superiority and dependability of their four-engined equipment and, with prospects brighter than ever for the creation of a striking Air Force with equipment and personnel suitable and capable in the defense of our country, the Second Bombardment Group is grateful for the honor of being permitted to contribute so directly to the universally recognized new era in military as well as civil aviation."

*Note: We enter here a mild protest against the application by the Langley Field Correspondent of the term "Jeeps" to the B-17's. Firstly, that term is not befitting an airplane of this type. Why not let the term "Flying Fortress" suffice? Secondly, the autogyro has prior claim to the appellation of "Jeeps;" so let us be consistent.

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EXPERIENCES IN BAD WEATHER FLYING

First Lieut. Gerald E. Williams, of the 20th Bombardment Squadron, Langley Field, Va., recently obtained some interesting experiences in winter bad weather flying while making an extended navigation flight to San Antonio, Texas, in the North American BT-9B. On two legs of the flight he encountered icing conditions, and while the plane picked up considerable ice the flying characteristics did not appear to be affected. The carburetor heat control, however, was entirely inadequate, and time and again with the carburetor heat full on, the carburetor iced up sufficiently to lose flying power. The opening of the mixture control, however, caused the engine to backfire, clearing the ice out of the carburetor.

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BRITISH GENERAL VISITS KELLY FIELD

Major General W.G. Holmes, of the British Army, visited the Air Corps Advanced Flying School at Kelly Field, Texas, on December 9th, and while at this field he was accompanied by Colonel Arnold N. Krogstad, Commandant of the Advanced Flying School, and 1st Lieut. Troup Miller, Jr.

General Holmes was well pleased with everything he saw, and made particular mention of the Miniature Range building for training in artillery adjustment. He was entertained at Luncheon by the Commanding General of the Air Corps Training Center at Randolph Field, following his visit to Kelly Field, and later in the afternoon left for New Orleans, La.

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SEED PLANTING IN HAWAII FROM THE AIR

Initiating field training for the 5th Composite Group, December 1st found the 23rd Bombardment Squadron, of Luke Field, T.H., packed and moving to Burns Field on the Island of Kauai for one week of camping. "With all the available Keystone airplanes in the Group attached for this move," declares the News Letter Correspondent, "we feel that the trip will be more than worth while. The chief purpose of this encampment is to carry out a 'Seed Planting Program' in cooperation with the Chief Forester of the Territory of Hawaii. The camp will allow all personnel to become better acquainted with the terrain of the Island of Kauai both from the air and from the ground."

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During the month of November the Engineering Department of the San Antonio Air Depot overhauled 17 airplanes and 56 engined and repaired 39 planes and 10 engines.

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ARMY AIR CORPS TECHNICAL SCHOOL OPENS BRANCH AT DENVER

Shortly after the first of January, 1938, a branch of the Army Air Corps Technical School will open at Denver, Colorado, according to a recent announcement by the Hon. Harry H. Woodring, Secretary of War.

The War Department has contemplated for some time the expansion of the Air Corps Technical School to meet the increasing demand for Air Corps specialists and craftsmen, due to the greater complexity and large numbers of modern military aircraft which the Air Corps is now receiving.

In planning the expansion of the facilities for training Air Corps technical personnel, both commissioned and enlisted, it was found advisable to establish this auxiliary branch school at Denver, Colo. The instruction for photographers and armorers, heretofore accomplished at Chanute Field, Rantoul, Ill., will hereafter be carried on at this new branch.

In the Armament Section of this School, both officers and enlisted men will be given instruction in the installation, firing, maintenance and repair of machine guns, and in the operation and maintenance of all apparatus used in bomb dropping.

In the Photographic Section, officers and enlisted men will be given thorough instruction in aerial photography, including every step from the taking of the air photograph to the assembly of the finished prints into mosaics. The instruction will include the maintenance and repair of cameras and the mixing of photographic chemicals.

Denver provides certain definite advantages for a branch of the Technical School. Adjacent to the site selected are several areas suitable for bombing and gunnery ranges which would provide practical gunnery firing of live ammunition and bombs. Throughout a large part of the year the climate of Denver is particularly suited to aerial photography. No suitable bombing and gunnery facilities are immediately available at Chanute Field, the present location of the Air Corps Technical School, since it is surrounded by rich farming land and lies in a thickly populated section. Long winter climatic conditions with much cloudy weather frequently delay photographic work at the present location. For these reasons, it seemed advisable to select a site where weather and surroundings were more favorable to the peculiar work to be done.

In order to open the School at Denver, it has been necessary to transfer from Chanute Field the students now undergoing instruction in the Armament and Photographic Sections. This will permit the detail of additional students to the remaining courses at Chanute Field, maintaining it at its regular capacity.

Even with both branches operating at maximum capacity, as is the War Department plan, additional construction will be necessary and considerable time must elapse before the two schools can meet the demand for trained men.

Lieut. Colonel Junius W. Jones, Air Corps, the present Commanding Officer of Chanute Field, has general supervision of the new construction at the Denver Branch. The actual construction will be done by Captain H.D. Stetson, Quartermaster Corps, Constructing Quartermaster, and Captain H.W. Anderson, Air Corps, Executive Officer.

Four Air Corps enlisted men from Chanute Field have already reported to the new station at Denver, and about 32 officers and 340 enlisted men will report there soon. Of this number, approximately 18 officers and 197 enlisted men will constitute the permanent post garrison, the remainder being students.

Most of the labor for building the new Denver Branch is being supplied through a W.P.A. Project. For the acquisition of land, the City of Denver has floated a bond issue of $750,000. Completion of the project is being expedited.

Present War Department plans contemplate that the new Denver Branch School will be composed of two units: the first, consisting of the School and main airdrome, will be located at what was heretofore the Agnes Phipps Memorial Sanitarium, approximately six miles southeast of the center of the City of Denver.

The present main building will be altered to accommodate a post and school headquarters, administration office, hospital, quarters, recreational and messing facilities for enlisted men. Workers employed by the Works Progress Administration are now altering and refinishing other buildings to be used for class rooms, shops and laboratories. Sixteen hundred W.P.A. workers are now clearing and levelling the airdrome, grading runways and erecting hangars.

The second unit will consist of an adequate bombing and gunnery range and an auxiliary airdrome adjacent thereto large enough for planes of all types. The exact location of this unit has not yet been determined.

This arrangement makes it possible to have actual aerial gunnery and bombing without requiring bomb-laden planes to fly over other than Government property or to otherwise endanger the property of civilians residing in the vicinity.

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Two Air Corps officers, Colonel Robert E.M. Goolrick and Major Arthur W. Brock, Jr., both holding temporary rank, were given permanent promotions in these grades, effective December 1st for Col. Goolrick, and December 4th for Maj. Brock.

"W I N G N I G H T S"

In 1934, when the Alaskan Flight was enroute north, a Canadian Army regiment at Winnipeg gave a dinner in honor of the American fliers. It was a dinner by a famous old organization and conducted along formal lines and a definite ceremonial routine which had been in existence in the regiment for many, many years. General Arnold, Commander of the Flight, was greatly impressed by many features of this "Regimental" night.

Shortly following his return, General Arnold was made Commanding General of the First Wing, GHQ Air Force, March Field, Calif. Not long after the completion of the organization, General Arnold introduced the "Wing Night," popularly called the "Whing Ding." All the officers of the Wing assembled at the Officers' Club for preliminary refreshment, followed by formal dinner, conducted along a definite schedule. Near the close of the dinner, a member of the Wing Staff arose and proposed a toast - "The President of the United States," which concluded the formal ceremonials at the dinner.

Thereafter, a prominent speaker, such as the Corps Area Commander, delivered before the officers of the Wing there assembled, an entertaining and instructive address on a current topic. The evening concluded with a "show" usually devised to depict humorous instances and to point to the idiosyncrasies and eccentricities which certain officers of the Wing had recently demonstrated, wittingly or unwittingly, to their later discomfort. Usually there was a comic presentation of the "Dumbell Trophy" to the individual of the Wing who had made the outstanding mistake of the month. As the show was finished, all of the officers joined in singing Wing and Group songs.

General Arnold was enthusiastic for those "Wing Dinners," believing that they greatly promoted the spirit of get-together and raised morale. General officers of other branches of the service who attended these dinners, were particularly enthusiastic about their ritual, routine and programs and the beneficient results they believed were sure to follow these affairs.

Reports are coming into the Office of the Chief of the Air Corps that other Wings of the GHQ Air Force are carrying out this or a similar idea. A report from Brigadier General George H. Brett, Commanding General of the air forces of the Panama Canal Department, told of their recent success with these monthly Wing ceremonials. The Wing in Panama apparently had expanded somewhat on the original theme. They devote a whole day and the following evening to the affair. The morning of the day is consumed in an aerial review and ground inspection of the troops. The afternoon is devoted to competitive athletic sports wherein the representatives of the various squadrons and groups compete for prizes and demonstrate their athletic prowess. In the evening, all of the officers of the Wing assemble for the Wing dinner.

When General Westover recently returned from Hawaii, he spoke particularly of his pleasure at having witnessed a similar Wing function in Hawaii.

So, it seems the Regimental Nights, about which old soldiers love to tell as among the high lights of the old Army, are reappearing in the Air Corps under this new guise, but with the same beneficient results, cementing friendships, fostering a common understanding and promoting good fellowship.

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THE ORGANIZATION OF COMBAT CREWS

In order to have properly trained combat crews ready for action as soon as the new Douglas B-18 Bombardment airplanes are received, the 88th Reconnaissance Squadron of Hamilton Field is conducting a series of classes to qualify members of future combat crews.

Under the general supervision of 1st Lieut. Leslie O. Peterson, Materiel Officer, instruction is given both in theoretical and practical subjects, by qualified noncommissioned officers of the Squadron. Although only those men immediately interested in the subject are required to attend the periods of instruction and undergo the examinations leading to the qualification of journeymen in the specialty, all members of the Squadron are encouraged to do so.

Instructors of future aerial engineers are Technical Sergeant Carl G. Lantz, Staff Sergeants Henry Williamson and Fremont R. Alford. These three men have recently returned from Santa Monica, Calif., where they pursued a course of instruction in this subject at the Douglas Aircraft Company, manufacturers of the B-18 Bombardment airplane.

Aerial armorers are instructed by Corporal Oliver R. Kamstra and Private 1st Class Blaine C. Van Valin. Aerial radio operators are being trained individually under the supervision of 2nd Lieut. Arthur V. Jones, Air Reserve, Communications Officer.

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A contract was recently awarded by the Army Air Corps to Keuffel and Esser Co., Hoboken, N.J., in the amount of $177,450. and to Bausch Lomb Optical Co.,Rochester, N.Y., in the sum of $65,000, for the procurement of two types of drift meters for installation in Army Air Corps Bombardment planes now being fabricated.

V-7588, A.C.

NEW PROBLEMS FOR THE AIR CORPS TO SOLVE

NOTE: The following are the impressions of Private R.F. Fowler, 31st Bombardment Squadron, Hamilton Field, Calif., upon the recent visit of the XB-15 to that station.

There was something big in the air yesterday at Hamilton Field. But just how big was a matter that far exceeded the wildest calculation. Rumored about the field was the statement that the most gigantic of Air Corps aircraft was to make its debut at this, the newest and most modern of Army air fields.

It came from out of the north, this colossal ship of the ozone, and it grew to such proportions that doubtful speculation went about as to whether or not it would be able to sit down at our small portion of Marin County. Much to the surprise of everyone (everyone from the field and news "hawks" aplenty from San Francisco were on hand to see it come in) this giant plane, with the aid of its speed-reducing flaps, landed easily, using but three-quarters of the landing mat.

Although all were amazed at its size at that distance, it was not until it had come to rest in front of the hangar that the word gigantic conveyed its true meaning.

With this airplane it wasn't a question of how many men would be designated to crew it or keep it in condition; it was whether or not one squadron would be capable of crewing one engine. And it would no longer be the case of the Squadron sending in the report to staff officers that one certain airplane would or would not be in condition on a certain day - it would be a report concerning one motor only.

Because of the distance between motors, the most practicable means of communication is the radio. A twenty-four hour schedule is maintained on the net, due to the fact that a constant check on the weather is necessary. The fact that the crew on one engine might be enjoying perfect weather while the crew on the neighboring engine might be engulfed in a blizzard makes the weather report all important.

Each member of the crew working on this super plane is equipped with a compass and ten days' emergency rations, provided in case he should become lost while going about his work.

The average citizen isn't allowed to go aboard this craft for inspection, due to the fact that at the last landing one person got aboard unnoticed and wasn't found for days.

In conclusion, it is evident that if airplanes increase in size in the next ten years, as they have in the last ten, about the only place they will be able to land will be in Texas, and the members of the crews will have to be equipped with bicycles to take them to and from their stations aboard the leviathans.

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MISSIONS WITH ENGINEER TROOPS

After a lay-off of more than a month, and just when the 97th Observation Squadron (Corps & Army), Mitchel Field, N.Y., was entertaining the idea of putting the aerial cooperative material in moth balls for the winter season, the 1st Engineers at Fort DuPont, Delaware, came to the rescue with a call for a two-day mission. This work, conducted on December 9th and 10th, included spotting by aerial observer of eight camouflaged machine guns in defensive positions on the post of Fort DuPont; observation of post activities under conditions of enemy air raid, and observation of dismounted troops in march column being deployed for firing on a simulated attack from the air. On the second morning, drop and pick-up message work was accomplished.

Second Lieutenants Alfred G. Witter and Morris E. Thomas, Air Reserve, cooperated with the Engineers and attended the final critique conducted by Colonel C.L. Hall, Commanding Officer.

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STOCK OF PLANES AT CHANUTE FIELD GROWS

Three Keystone Bombers (designated by a wisecracker as "Flying Fortresses" - Chanute Field type) vintage unknown, were flown into that field from Kelly Field, Texas, thus swelling the line of airplanes parked outside of hangars. It is expected that they will suffer pulmonary congestion as a result of their departure from the sunny south. Already it has been noticed that the B-18 and C-33 have suffered head colds and spinal frigidity when they poked their noses or tails in hangars overnight. Only nose or tail could be accommodated, due to limited hangar space.

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A contract was recently entered into with the Hamilton Standard Propeller Division, United Aircraft Corporation, East Hartford, Conn., in the sum of $56,840.40 for the procurement of blade assemblies for controllable pitch propellers; and an additional contract with the same company in the amount of $76,500.00 for the procurement of propeller assemblies for constant speed governors; also a contract with the Eclipse Aviation Corporation, East Orange, N.J., in the amount of $27,778.00 for the procurement of alternator and dynamotor assemblies for installation in Bombardment aircraft now undergoing fabrication or already in service in tactical units; also a contract with Wendell Engineering Co., Newark, N.J. in amount of $44,922.25 for valve grinder and special tools.

DENVER AIR SCHOOL DESIGNATED LOWRY FIELD

According to a recent announcement of the Hon. Harry H. Woodring, Secretary of War, the new branch of the Air Corps Technical School at Denver, Colorado, will be named Lowry Field, in honor of Lieutenant Francis B. Lowry, a resident of Denver, Colorado, who was killed in action at Crepion, France, September 26, 1918.

The new field is located six miles southeast of Denver at the former site of the Phipps Memorial Hospital, where 1600 W.P.A. workers are now engaged in making the field suitable for occupancy early in January.

The National Guard field located at Denver was named Lowry Field on July 1, 1924, but since it has been discontinued and closed and the future activities of the National Guard airmen will be conducted at the Denver Municipal Airport, the name now becomes available for the new Army Air Corps station.

In announcing the name selected for the Army's new technical school site, the Secretary of War stated that it was particularly appropriate that it be named Lowry Field, in view of the fact that Lieut. Lowry was born in Denver, Colorado, December 1, 1894.

Air Corps officers said it was peculiarly fitting that the new home of the Photographic Branch of the Technical School should be named for Lieut. Lowry, who was killed while on a war-time photographic mission. The citation on the award of the Distinguished Service Cross to him reads as follows:

> "On September 26, while on a very important photographic mission, Lieut. Lowry with Lieut. Kelly, pilot, realized the importance of the mission and chose to continue their course through harassing antiaircraft barrage. A shell made a direct hit on the plane, brought it down in fragments, and instantly killed Lieut. Lowry."

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MEXICAN FLYING STUDENT KILLED IN CRASH

Captain F.A. Avelino, of the Mexican Army, a student in the Attack Section of the Air Corps Advanced Flying School, Kelly Field, Texas, crashed into a house in the city of Austin, Texas, on the night of December 7th while making a night flight from Hensley Field, Dallas, Texas, to Kelly Field. The crash resulted in the death of Captain Avelino and a two-year old child, who had just been put to bed by its mother a few minutes before the crash.

Captain Avelino was attempting to locate the Austin Airport while flying at a low altitude (the ceiling estimated at 300 feet, and ragged) and had been heard circling over Austin just prior to the crash. Apparently he became confused by the tower lights of Austin, thinking that one of them was the floodlight at the Airport, and while making an approach at what he thought was the Airport the plane struck the roof of one house and ploughed into the house next door.

Captain Avelino was flying an A-17 type airplane on a student flight with sixteen other students of the Attack Section departing from Hensley Field at five-minute intervals, beginning at 5:45 p.m. At the time the first plane was cleared from Hensley Field the weather was satisfactory along the route from Hensley Field to Kelly Field. At 6:50 p.m., Lieut. Vance landed at Kelly Field from Hensley Field and reported low ceilings between Waco and Austin. Captain Jamison, Chief of the Attack Section, called the Radio Range Station at San Antonio, Texas, and requested a broadcast over the Waco station to all students of the Attack flight to return to Hensley Field, and that the weather was closing in rapidly between Waco and San Antonio. All students of the flight received this broadcast and carried out instructions, with the exception of Captain Avelino, who apparently did not understand the radio broadcast and continued on his course, to encounter the low ceiling reported between Waco and Austin.

Captain Avelino had made satisfactory progress in his training at the Advanced Flying School, and it is exceedingly unfortunate that his difficulty in understanding the English language, especially over the radio, should have caused the termination of his career in the flying game.

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AIRCRAFT INSTRUMENT LIGHTING

According to advice received from the Air Corps Materiel Division, Wright Field, Dayton, Ohio, individual instrument lighting for aircraft has recently been standardized, superseding the indirect instrument board. This method of illumination, which is glareless and uniform, is obtained by the use of a 3-volt miniature lamp, replaceable in flight. Voltage reduction from 12 to 3 volts and uniformity of lighting between instruments is obtained by the use of fixed resistors of various resistance values. A control rheostat in the 12-volt circuit is used for the variation of illumination on the instruments. The electrical system to the instrument lamp is electrically shielded and uses a quick-detachable connector.

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Captain Courtland M. Brown, Air Corps, was promoted to the temporary rank of Major in the Air Corps with rank from December 12, 1937.

ARMY AIR CORPS ACCOMPLISHMENTS FOR 1937 AND PLANS FOR 1938
A Review by Major General O. Westover, Chief of Air Corps.

With the passing of the year 1937, it is well to make a survey of accomplishments in the immediate past and lay plans to guide us toward future progress.

Army Air Corps accomplishments for 1937 can best be summarized under three headings: Technical development and experimentation; production of material, airplane engines, and accessory equipment; tactical operation.

Technical Development and Experimentation

The year 1937 stressed the development and initial test of several interesting airplane types. The XFM-1 Bell multi-seater fighter was watched with particular interest by Army Air Corps officers because it represented not only a new plane, but an entirely new development. Fighters in the Army Air Corps heretofore have been of the single-seater and two-seater types, each powered by a single engine. The multi-seater fighter was drawn up to new specifications, our tactical organizations having expressed a need for a fighter with sufficient power to cope successfully with the giant Bombers appearing in all the leading air powers of the world. The experimental plane, the Bell "Airacuda," was 1937's answer to that requirement. It combines into one airplane probably more departures and experimental installations than any other single airplane developed in the world last year. It is now undergoing flight tests at our Experimental Division, Wright Field, Dayton, Ohio.

Another plane, unique in the field of aviation, which was developed to Army Air Corps specifications and delivered for test during the year was the so-called sub-stratosphere plane, the Lockheed YC-35. In outward appearance very similar to a Lockheed commercial plane product, it was developed with a supercharged pressure cabin and is now being used as an experimental laboratory at Wright Field to study the effects on personnel and equipment in operations at high altitude. It was the first such pressure cabin plane known and is devised to obtain the data and test accessory equipment, looking to the time when military air fleets and commercial air transport may move at high levels in the interest of increased speed, efficiency and economy.

The XB-15, Boeing 4-engine "Super Flying Fortress," was delivered to the Army Air Corps in December as the next step in the Army's big bomber development program. It represented a tremendous increase in range and armament capacity.

The XP-37, developed by the Curtiss Airplane Division, Buffalo, N.Y., was the year's outstanding single-seater fighter built for the Army Air Corps. It emphasizes a considerable increase in speed, maneuverability, and combat efficiency over 1936 types.

Development in the power plant field for the year included delivery and test of air-cooled and liquid-cooled engines of increased power and refinement. Engines of a shape suitable for installation in airplane wings appeared and were pushed to completion. These looked particularly promising for large planes requiring multi-engine emplacement.

Not alone in the airplane and engine field was progress made; many accessories were completed experimentally and tested which are expected to have a marked effect on the universal utility of both fighting and commercial aircraft. Outstanding in this field was the Army's automatic landing device. This unit, developed by officers and engineers at Wright Field, demonstrated by more than fifty landings that it is now possible to land aircraft successfully in any kind of weather, even with zero visibility, automatically, without a human hand touching the controls. New and important instruments were designed and perfected facilitating celestial navigation for aircraft.

Production of Materiel

More than 400 new airplanes were bought by the Air Corps during the year to comply with the Army's program to build by June, 1940, to the authorized strength of 2320 modern effective planes. These new military aircraft are of latest types and designs, and it is no exaggeration to say that they are in every case the equal, and in some cases the superior in combat efficiency to those possessed in quantity by any other country.

Funds were expended in large amounts to increase our operating efficiency by supplying more nearly adequate bases. Prominent among the new fields for the year on which work was started or pushed energetically were Hickam Field in Hawaii; McChord Field, the new Northwest air base at Tacoma, Washington; and the branch of the Air Corps Technical School at Lowry Field, Denver, Colorado. Existing airdromes were greatly improved by additional hangar construction, shop and technical equipment installations and by the construction of additional landing and take-off runways.

Tactical Operation

The General Headquarters Air Force ably supervised and superintended training programs and schedules approved by the War Department for Air Corps tactical units. Early in the year, individual pilot efficiency was stressed, immediately followed by squadron, group and wing maneuvers devised to improve and test tactical unit efficiency on a large scale. Organization training was tested on a war-time basis by several large scale maneuvers. Organizations made sev-

eral mass flights from coast to coast to perfect all the details of mobility and to demonstrate the problems incident to a concentration of our Air Force on either coast.

The Outlook for 1938

Plans have already been perfected and initiated to stress in 1938 our experimental plane and engine development. It has been recognized by our military leaders that great emphasis must be placed on experimentation and development of flying equipment if our country is to remain abreast of world air progress. This is particularly true in view of the fact that it is well known that several of the leading air powers in the world, now realizing the reason for American predominance, are expending vast sums on their aviation experimental programs. We now know, therefore, that if we do not increase our funds for research and development materially within three to five years, we shall be left behind in aeronautical progress. Our planes and engines will be inferior to those of our possible adversaries.

The definite trends in aviation point to the ever increasing size of aircraft, increased horsepower output of engines, with less weight per unit horsepower, and multiple-engine employment. Another definite trend is toward the more universal employment of aircraft in all weathers and climes, made possible by perfected flight and navigational instruments.

Two great air doctrines will motivate all military air work for 1938. The first of these is a realization that airplanes alone do not make an Air Force. Along with modern up-to-date planes must go skilled operating and combat crews, trained maintenance crews, efficient accessory equipment, and ample air bases.

The second of these basic and fundamental doctrines was ably enunciated by the Secretary of War in the following words:

"It should be borne in mind that modern aircraft cannot be quickly improvised. The construction of airplanes necessarily takes considerable time. Hence, our peacetime strength should approximate rather closely our requirements in war. Furthermore, in a major war our air arm would probably be engaged almost immediately on the opening of hostilities. Therefore, it is desirable that it be practically on a war footing in time of peace."

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1937 REED AWARD GOES TO E.N. JACOBS

For his work on the aerodynamic improvement of airfoils used in modern military and commercial aircraft, Mr. Eastman N. Jacobs, aeronautical engineer on the staff of the National Advisory Committee for Aeronautics, was recently awarded the Sylvanus Albert Reed Award for the year 1937. It was considered that Mr. Jacobs' contribution to aeronautical science during the last year was outstanding, and that, as a result thereof, the performance of airplanes, both as to speed and carrying capacity, has been improved, all modern military and commercial airplanes using the wing sections developed by him. It was further made known that the use of the new type of wing improved the safety as well as the performance characteristics of the airplanes.

The Reed Award, which includes a certificate and a cash award of $250, is granted each year, under the auspices of the Institute of the Aeronautical Sciences, "for a notable contribution to the aeronautical sciences resulting from experimental or theoretical investigations, the beneficial influence of which on the development of practical aeronautics is apparent."

Mr. Jacobs' investigations were conducted in the laboratories of the National Advisory Committee for Aeronautics at Langley Field, Va. He initiated an extensive research for development of improved forms for airplanes, and through years of study has developed shapes which give the most efficient air flow. His work has been recognized by the Society of Automotive Engineers, which awarded him the Wright Brothers Medal in 1933, and by the Royal Academy of Italy, which entertained him as guest speaker of the Volta Foundation in 1935.

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THE THREE-WHEEL LANDING GEAR

An Associated Press aviation correspondent recently stated that American aviation is about ready to set forth on a tricycle, and in doing so will revolutionize not only the airplane industry but airport planning as well. He goes on to say that Major Carl F. Greene, Air Corps, head of the Air Corps engineering procurement branch, Materiel Division, Wright Field, Ohio, intimated that results of experiments with a three-wheeled landing gear, designed to supplant the orthodox undercarriage, already suggest important changes in airplane design, flight operations and airdrome construction.

According to Major Greene, tests conducted on a 9,000-pound twin-motored converted amphibian show that the ship, equipped with the tricycle gear, can be landed with less regard to prevailing wind direction or to the attitude of the ship, than in the case if an airplane equipped with the present type of undercarriage. Thus is suggested elimination of extensive systems of runways for airports - and substitution of an all-concrete or other hardsurfaced landing field to accommodate probable increase in air travel. In its military aspects there arises the possibility of utiliz-

(Continued on Page 14).

FLOOD RELIEF WORK IN CALIFORNIA

Flood relief work in the inundated central valley of California on December 12th and 13th by the 88th Reconnaissance Squadron of Hamilton Field, Calif., proved again the usefulness of the Army in peace-time emergencies. With the Sacramento and San Joaquin Rivers and their tributaries overflowing after torrential rains, with towns inundated, levies breaking and survivors marooned in mountainous terrain, requests for aid came from both Army District Engineers and CCC authorities.

Flying precariously between the precipitous walls of Yosemite Valley, 1st Lieut. R.R. Walker, pilot, and 2nd Lieut. Jack L. Randolph, co-pilot, dropped food and medical supplies from their Sikorsky amphibian airplane to the members of a Civilian Conservation Corps camp and other refugees in Yosemite Valley. At that time the valley had been isolated when the all-year highway was washed out by the Merced River.

Photographs of breaks in the flood control system of the area were taken from two Douglas Bombing airplanes of the 88th Reconnaissance Squadron. Major Newton Longfellow, pilot, with 1st Lieut. Robert H. Kelly, co-pilot, and Staff Sgt. David L. Fredenburg, photographer, made reconnaissance strips of the rivers running into Monterey Bay, and of the Russian River from its mouth to the flood-ruined city of Healdsburg. Pin point photographs of broken levies and a reconnaissance strip of the Sacramento River from Red Bluff to Colusa were obtained by 1st Lieut. Leslie O. Peterson, pilot, with 1st Lieut. John B. Cary, co-pilot, and Private Henry F. Staple, photographer.

The first call for aid reached the Squadron about 10:00 a.m., Sunday, December 12th. By noon, crews had been assembled and all airplanes were off the ground. Prints of all photographs were delivered to the Army District Engineers the following morning.

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RESERVE OFFICERS VISIT CHANUTE FIELD

Forty-five Reserve officers, representing all branches of the Army, and a cross section of outstanding citizens in Central Illinois, visited Chanute Field, Rantoul, Ill., on December 8th in response to an invitation extended by Lieut. Colonel Junius W. Jones, Commandant of the Air Corps Technical School.

The Reserve officers forming the visiting group were members of the fifth sector in charge of Major Walter F. Gregory, Infantry, instructor at Decatur, Ill. A formal welcome to Chanute Field and the Air Corps Technical School was extended by Major Earle G. Harper, Acting Commandant, following which Major Harper assigned groups of Reserve officers to a Regular officer on duty in the School.

The visitors displayed great interest in the various departments of the School, the equipment used, and the modern and thorough instruction system employed. Some of these Reserve officers had been ground officers during the World War, and some were aviators. All of them expressed profound amazement at the great advances in airplanes, aircraft engines, propellers, instruments, accessories, armament, radio and photographic equipment. The inspection trip was interrupted for luncheon at the Officers' Club.

Upon completion of the tour through the School and around the post, the visitors were unanimous in the opinion that they could hardly have believed (unless they had actually seen) that such a splendid school with high morale could be operated in wooden buildings of war-time vintage.

Having seen the modern airplane and its complicated equipment, the visitors were very greatly surprised that a technician competent to maintain the various items could be trained in the short time allotted to the various courses.

Upon completion of the inspection tour, Major Harper thanked the Reserve officers for their interest and told them that they were the most representative group of citizens he had ever seen visit the Air Corps Technical School.

The spokesman for the Reserve officers stated that they wished to commend the Commandant and school personnel for the splendid school which the Army Air Corps has established at Chanute Field.

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Tricycle Landing Gear (From page 13)

ing readily convertible sections of existing paved highways - granted non-interference from nearby communication lines.

The use of the tricycle landing gear likely would necessitate important changes in plane design, it was stated, noting that to date no "retractable" equipment of the kind is available. It was agreed that the gear will have to be pulled up and stowed away while the plane is in flight in the same manner as present landing gears.

Through resultant new problems of load distribution and change in the plane's relative position to the ground, being roughly parallel with it, as it lands or gets under way, it was Major Greene's belief that widespread adoption of the new type undercarriage might make desirable a return to "high wing" monoplane construction. Officers appeared agreed that the use of the tricycle gear would eliminate many landing hazards encountered due to present necessity for the pilot to contrive an exact adjustment of the conventional plane to the ground.

MISSING OFFICERS STRANDED ON TINY ISLAND

One of those not infrequent typhoons in the Philippines proved the source of much worry in U.S. Army and Philippine Army circles recently. On December 5th, when returning to Manila in a Bombing plane from the island of Mindanao, where they had gone to make a survey of Moro uprisings, Major General Paulino Santos, Chief of Staff, and Colonel Fidel Segundo, Chief of the Intelligence Corps of the Philippine Army, piloted by Lieut. William Lee, Army Air Corps, Chief of the Philippine Army Air Corps, encountered the raging typhoon and were missing for four days before they were sighted on a tiny tropical island, the identify of which proved a source of much doubt, by Lieut. Alfred Maxwell from an Army plane, one of a number of others engaged in the search for the missing officers.

Lieut. Lee, whose article on the Philippine Army Air Corps appears elsewhere in this issue of the News Letter, exhibited considerable skill in managing to land the bombing plane on the little island. The trio were welcomed and entertained by a fisherman and his wife, who were the sole inhabitants of the little island.

During his four days' stay on the island, Lieut. Lee learned to eat rice and eggs - the diet for every breakfast, lunch and dinner - with his fingers. The fisherfolk's spoons were made of shells. They had no knives or forks.

General Santos and Colonel Segundo talked in dialect with the fisherfolk. They had never heard of Manuel Quezon, President of the Philippine Commonwealth. It was exciting news to them that the Philippines took the first step toward independence from the United States two years ago.

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DISTRIBUTION OF AIR COMMERCE REGULATIONS

The Office of the Chief of the Air Corps received 300 copies of Air Regulations from the Bureau of Air Commerce, Department of Commerce, which were distributed on a pilot quota basis to the Air Corps stations.

The Bureau of Air Commerce has promised 2200 additional copies as soon as they are received from the printer. Immediately upon their receipt they will be distributed to the Air Corps stations in sufficient quantity so that one copy will be available for each pilot.

Steps have been taken by the Office of the Chief of the Air Corps to print a digest of air regulations prepared by the Headquarters, GHQ Air Force, which was exceptionally well done, on the back of the airways map in colors, of a suitable size to fit into the radio activities chart folder. These will be distributed to Air Corps stations as soon as they are received from the printer.

RADIOMEN GRADUATE FROM SCHOOL IN HAWAII

Graduation exercises for students of the 18th Wing Communications School were held at Luke Field, T.H., on December 1st. Twenty-three enlisted men graduated. For the past seven months, Air Corps soldiers from Luke and Wheeler Fields have been working on a stiff course in radio theory, code and field telephones, along with associated sub courses designed to turn out full fledged radio operators and mechanics. Out of 34 students starting the course, the following 23 were graduated:

Michele Aulicino	Timothy J. Hurley
John J. Call	Cordell C. Jones
Lynn H. Child	Ivor Keller
Edmund R. Dabney	Paul S. Kowalski
Theodore G. Dell	Stanley J.Richardson
Alfred L. Dickens	Edward W. Robertson
Frank S. Erickson	Francis A. Russell
Erwin L. Foreman	Raymond Strimling
John J. Haggerty	Leon J. Waldrop
Harold E. Horton	Willard L. Worden
Francis L. Huck	Neal I. Zollars
John Ganetos	

The instructors were Corporal Raymond L. Dickson and Private 1st Class French O. Cox. The School is under the direction of 1st Lieut. Daniel A. Cooper, Air Corps.

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SKY BATTLESHIP FLIES TO DAYTON FOR TESTS

The biggest Bombardment plane of them all, the Boeing XB-15, left Seattle, Wash., shortly before noon on December 2nd, enroute to Dayton, Ohio, via the southern route, for final tests. The Bomber had madd 14 test flights over Seattle before it was officially turned over to the Air Corps.

Ten men, headed by Majors John D. Corkille, Air Corps Representative at the plant of the Boeing Company, and Stanley M. Umstead Chief of the Flying Branch at Wright Field, were occupants of the ship, the other eight being Capt. C.S. Irvine, Air Corps, engineering officer; C.N. Keller, radio operator, civil employe of the Army; George C. Henderson, Air Corps engineer, Mark H. Koegler, mechanic; Jack Kylstra, projection engineer for Boeing; Kenneth Taplin, Boeing electrician; and Al Hobush and William Fell of the Eclipse Aviation Corp., manufacturer of the plane's auxiliary power plant equipment.

The so called Sky Battleship, after landing at Hamilton Field in the afternoon, proceeded to its destination by easy stages, reaching Wright Field on the afternoon of December 11th.

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OBITUARIES

Two Air Corps Reserve officers, Captain Ira W. Galehouse and 1st Lieut. W. F. Stewart, who were World War veterans and served overseas in that conflict, presumably were drowned in the Pacific Ocean as the result of an airplane accident on the afternoon of December 12, 1937.

Permission had been granted these two officers by the Commanding Officer of Air Reserve activities at the Oakland Municipal Airport to make a local instrument training flight. They departed from the Oakland Airport at 2:10 p.m., with orders to return at 3:30 p.m. The weather was good and the visibility excellent.

Following the failure of the two veteran airmen to return on scheduled time, the Commanding Officer at the Oakland Airport instituted a search for the missing BT-9C airplane from five o'clock that afternoon until darkness, and at daybreak the following day an elaborate search lasting until late in the afternoon was conducted by a total of 40 airplanes, including seven from the Oakland Airport, twenty-one from Hamilton Field, Calif.; seven from Moffett Field, Calif., and five from the Naval Reserve Base at Oakland. The scope of the search covered the entire land and off shore area within a 75-mile radius of the Oakland Municipal Airport. No trace of the missing flyers was found, although aerial observers located oil and drift floating in lower San Francisco Bay. Directed to the spot, Coast Guard personnel picked up a seat cushion bearing marking and part number identical to the one in the missing airplane. A portion of a wooden radio mast strut was also picked up.

Captain Galehouse was born at Lakeville, Calif., January 22, 1894. He attended grammar schools and high school in his native city and the Mt. Tamalpais Military Academy at San Rafael, Calif. For three years he served as a second lieutenant in the California National Guard.

Enlisting in the Aviation Section, Signal Reserve Corps, at San Francisco on June 12, 1917, he was sent to duty overseas following his graduation, on August 20, 1917, from the School of Military Aeronautics, University of California, Berkeley, Calif. He received his primary and advanced flying training at the 8th Aviation Instruction Center at Foggia, Italy, and upon passing the tests for the rating of Reserve Military Aviator, he was commissioned a 1st Lieutenant, Aviation Section, Signal Corps Reserve, April 6, 1918.

Captain Galehouse served as pilot and bombing instructor at the 8th Aviation Instruction Center until June 18, 1918, and was then ordered to the zone of war on the Italian front, being attached to the 5th Squadron, flying Caproni airplanes, and stationed at San Pelagio airdrome. He served as a bombing pilot until November 13, 1918, and flew approximately 50 hours over the lines. On July 3, 1918, he was decorated with the Croce di Guerra, for meritorious service, by King Victor Emanuel at Bassano, Italy.

Upon his return to the United States, Captain Galehouse was honorably discharged from the service on January 13, 1919. Shortly thereafter, on March 18, 1919, he was appointed a First Lieutenant in the Air Reserve, and he maintained his Reserve status until his death. He was promoted to Captain on January 25, 1930. His occupation in civil life was that of District manager of the American Eagle Aircraft Corporation.

Lieut. Stewart was born November 16, 1893, at Dumbarton, Scotland. During the World War he enlisted, July 10, 1917, in the Aviation Section, Signal Corps Reserve, and, following his graduation from the School of Military Aeronautics, University of California, Berkeley, Calif., October 6, 1917, he was ordered to duty overseas. He received his primary flying training at Tours, his advanced training at Issoudun, and his aerial gunnery training at Cazaux, following which he was attached to the 27th Aero Squadron, 1st Pursuit Group.

Shortly following his return to the United States, Lieut. Stewart was honorably discharged from the service on February 24, 1919. He was subsequently commissioned as a 1st Lieutenant in the Air Reserve, and maintained his Reserve status continuously.

Engaged in a training flight on the morning of December 20, 1937, two Air Reserve Second Lieutenants, James E. Darby (pilot) and Sterling S. Tatum (passenger) were instantly killed when their BT-2B1 airplane fell in a spin at Fort Mitchell, Ala., 3 miles from Lawson Field, Fort Benning, Ga. The weather was clear and unlimited, and there was no apparent failure of equipment or materiel. Lieut. Darby's attempt to use his parachute at a low altitude was in vain.

Lieut. Darby was born in Colfax, Indiana, November 9, 1903. He graduated from the Colfax Public Schools in 1922 and from the DePauw University in 1926. He served with the Indiana National Guard for three years. Appointed a Flying Cadet, he graduated from the Primary Flying School at Brooks Field and from the Advanced Flying School at Kelly Field, Texas; was rated an Airplane Pilot, October 10, 1931, and on that date appointed a 2nd Lieutenant in the Air Reserve.

Assigned to active duty at Brooks Field, Lieut. Darby served successively in various capacities with the 22nd Observation and the 58th and 62nd Service Squadrons for a period of nearly nine months, and then reverted to inactive status. In the latter part of 1934 he was on active duty with the Civilian Conservation Corps. In intervening periods, and for nearly four years, he was employed as co-pilot and pilot by commercial airlines. In September, 1937, he was placed on extended active duty with the Air Corps at Lawson Field, Fort Benning, Ga. At that time his total flying time as pilot and co-pilot was approximately 5600 hours.

Lieut. Tatum was born on June 4, 1906, at

Villiage Springs, Alabama. He graduated from the Alabama Polytechnic Institute in 1928 with the degree of Bachelor of Science. He was a member of the 106th Observation Squadron, Alabama National Guard, until his appointment as a Flying Cadet in the Air Corps. Following his graduation from the Advanced Flying School, Kelly Field, Texas, February 27, 1931, he was rated as Airplane Pilot, appointed a second lieutenant in the Air Reserve and placed on active duty with the 49th Bombardment Squadron at Langley Field, Va.

Reverting to inactive status June 30, 1932, Lieut. Tatum vacated his Reserve commission by accepting a commission as second lieutenant in the Alabama National Guard, rejoining his former organization, the 106th Observation Squadron. He obtained an extended leave of absence from his organization and for a year and a half was employed as an aviator by the Chinese Government. Upon his return to the United States, he resigned from the National Guard on November 25, 1937; accepted re-appointment as a second lieutenant in the Air Reserve on December 1, 1937, and was placed on active duty for a period of three years with the Air Corps. He was assigned to station at Lawson Field, Fort Benning, Ga., and had been selected for duty at the Air Corps Technical School at Denver, Colo., effective on or about January 1, 1938.

The deepest sympathy of the Air Corps is extended to the bereaved families and friends of these officers who died in the service of their country.

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FAIRFIELD IS AIR FREIGHT TERMINAL

The Fairfield Air Depot has been designated the Air Freight Terminal for the East and Middle West. Supplies procured by the Materiel Division are shipped from the contractors to this Depot via rail and subsequently transferred to other Depots via air transport. The supplies are usually crated, or packed, and no further handling is required except labeling. Some of the packages must be opened, inspected and routed to different destinations, particularly those for insular possessions. "This concentration of air freight, in addition to general increase in business from the activities in the Fairfield Control Area, has somewhat retarded the warehousing program at this station," says the News Letter Correspondent. He goes on to say that the shortage of Air Transports is keenly felt as well as shortage of a quantity of small pneumatic-tired trailers which are of the proper height easily to load engines and supplies in Transports, and that it is difficult to serve visiting transports as promptly as desirable.

"The ideal situation of handling supplies via air transport," he says, "would be to establish a freight terminal building on the line so supplies could be loaded and unloaded direct into a transport. As supplies accumulate, they could be stored in such a building in sections labeled as to their destination. If such a building were available, the service could be improved considerably and transports could be loaded any time after normal working hours by enlisted personnel."

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COOPERATIVE MISSIONS BY 5TH COMPOSITE GROUP

During the latter part of 1937, the 5th Composite Group, Luke Field, T.H., has conducted one of the most extensive of the many cooperative missions assigned to it. Over 135 hours of high speed, high altitude towing was accomplished for anti-aircraft units of the Hawaiian Separate Coast Artillery Brigade. Missions were conducted both day and night, using high speed targets, towed by B-12 airplanes of the 4th and 50th Observation Squadrons at high altitudes. While tropical weather conditions do not as a rule require heavy flying equipment, the crews soon found that the temperature encountered made it highly necessary. Oxygen was found to be indispensable during the missions which required on the average of two hours towing at the desired altitude. Bad weather interfered to some extent with the work, and many missions were abruptly terminated by direct hits on the target as a result of the accurate marksmanship of the gun crews.

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AN INTER-ISLAND FLIGHT TO HILO

The 72nd Bombardment Squadron, stationed at Luke Field, T.H., sent four Keystone Bombers on an inter-island flight to Hilo, island of Hawaii, on December 10th. The flight was made for the purpose of acquainting new officers in the Squadron with outlying fields, and for routine navigation flying. Major Oliver P. Gothlin was designated as flight leader. The Commanding Officer of Luke Field, Colonel Millard F. Harmon, accompanied the flight in a BT-9 plane of the 50th Squadron. Colonel Hayes, Department G-3; Captain Thirkeld, the Department Commander's Aide; Major Jones, U.S.A. Retired; and Captain Keeley, of Fort Shafter, accompanied the flight.

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WAR DEPARTMENT ORDERS

Changes of Station

To Moffett Field, Calif.: Colonel Follett Bradley, from GHQ Air Force, Langley Field, Va., effective about February 10, 1938.

To Randolph Field, Texas: 2nd Lieut. Lloyd P. Hopwood, upon completion of tour of duty in the Hawaiian Department.

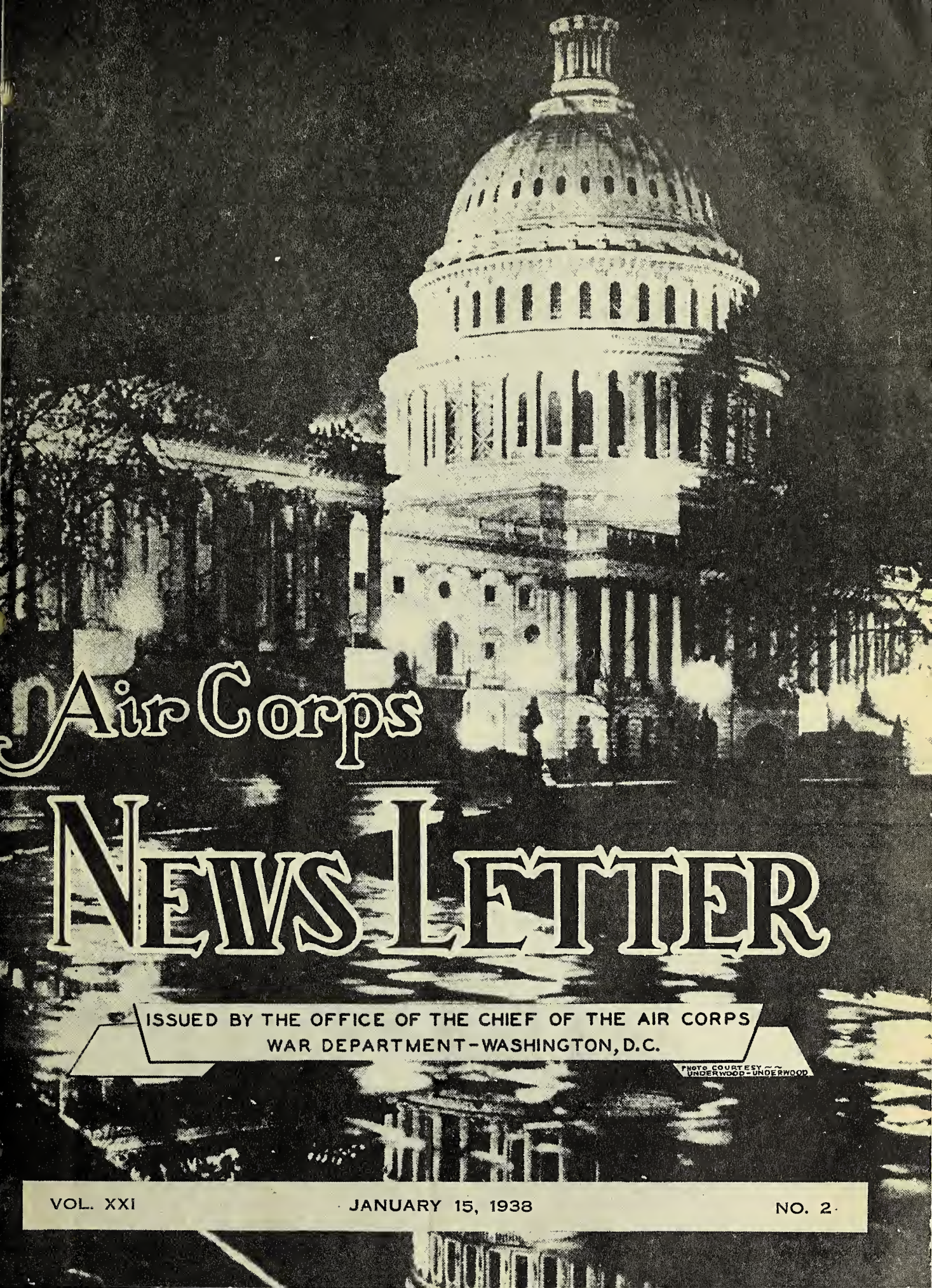
Relieved from duty with the Air Corps

2nd Lieut. George R. Cole, from duty at Randolph Field, Texas, and assigned to the 29th Infantry at Fort Sill, Oklahoma.

Reserve Officers assigned to active duty

2nd Lieut. Raymond Cummings Woodward, of Hempstead, Long Island, New York, to Langley Field, Va., to January 2, 1941.

2nd Lieut. John Harold Hayden, of New Rochelle, N.Y., to Langley Field, Va., to January 2, 1941.



Air Corps NEWS LETTER

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WAR DEPARTMENT - WASHINGTON, D.C.

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VOL. XXI AIR CORPS NEWS LETTER NO. 2.
Information Division, Air Corps — January 15, 1938 — Munitions Building, Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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THE UNTIMELY DEATH OF THE CONQUEROR OF THE PACIFIC

History records that in 1513 the intrepid Spaniard, Balboa, discovered the Pacific Ocean and that later, when he returned to Spain, fate proved cruel to him in that he was convicted of the charge of inciting rebellion, on the trumped-up evidence of a false friend, and executed.

Now, 425 years later, history records that Captain Edwin C. Musick, the man who was largely instrumental in conquering the Pacific by air, thus bringing to actual realization what was not so very long ago considered a fantastic dream of super-enthusiastic followers of aviation, was also the victim of unkind fate - one of those unfortunate aircraft accidents which happen now and then despite all the care and preparations taken to prevent them.

The lamentable accident to the flying boat, Samoan Clipper, on January 11th, near Pago Pago, Samoa, when it plunged into the Pacific in flames, carrying with it to a watery grave Captain Musick and the six members of his crew, marked the first disaster in the nearly three years' history of transpacific flying by Pan American Airways. According to reports, this accident has put at least a temporary end to the operation of the recently inaugurated line between the United States and New Zealand.

A Navy seaplane tender found the wreckage of the Samoan Clipper the following day some 14 miles northwest of Pago Pago in an oil slick. The fragments of the ill-fated flying boat were floating at the place where the Samoan natives claimed they had sighted a column of smoke rising above the ocean.

Reports stated that the Samoan Clipper, carrying 900 pounds of express, took off from Pago Pago for a non-stop flight of over 1800 miles to Auckland, New Zealand, the southern terminus of the new route. About an hour following the take-off, Captain Musick reported an oil leak in one of the four motors of the plane and that he was turning back. Approximately two hours after his departure from Pago Pago, he radioed to the Pan American Airways station at that point that he expected to land in about ten minutes and was signing off preparatory to dumping a sufficient quantity of gas to trim the ship to proper landing weight. No further word was received from him.

One of the top notch flyers in commercial aviation, Captain Musick, a veteran of 25 years of service in the flying game, rose to very high honors. In 1935 he received the Harmon Trophy (international award) which up to that time had been presented to only two other American flyers - Colonel Charles A. Lindbergh and the late Wiley Post. The American flyer, Howard Hughes, was given the international award in 1936. The Trophy is the gift of Clifford B. Harmon, and it is awarded annually for individual accomplishment in demonstrating the use of the airplane in transportation. The award governing body is the International League of Aviators. Each nation possessing a section of the League, with 300 flyers, is eligible for competition. Not only is there an international winner of the trophy each year, but also a winner for each country and replicas of the trophy are given to winners.

It is said that Captain Musick never made a spectacular flight. Pan American Airways entrusted to him the responsibility of pioneering the routes on most of the international schedules. He considered these first flights in the nature of commercial surveys and referred to his role of pilot as merely a "job."

Born in St. Louis, Mo., August 13, 1893, he attended grammar schools in that city. For three years he attended the Los Angeles Polytechnic School, and for two years thereafter continued at this school at night, specializing in shop work, motors, machine work and mechanical drawing, being employed during the day as an automobile mechanic in Los Angeles. In 1914 he entered the employ of the Glenn L. Martin Aircraft Company as a mechanic. A year later he found it decidedly more lucrative to carry on in the aviation game as an exhibition flyer.

Shortly after America entered the Worl War, Captain Musick, in June, 1917, entered the employ of the War Department as a civilian flying instructor at the Signal Corps Aviation School at San Diego, Calif. In December of that year he was transferred to Call Field, Wichita Falls, Texas, where he taught advanced flying and in which capacity he

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was regarded as especially proficient. He resigned from this position on August 28, 1918, to accept a commission as 2nd Lieutenant in the Marine Flying Corps at Miami, Fla.

After leaving the military service, Captain Musick joined the Aeromarine Airways in 1921 and began the study of navigation. Later he became affiliated with the Mitten Air Transport, then flying between Philadelphia and Washington.

After joining Pan American Airways in October, 1927, at Miami, Fla., Captain Musick completed his first assignment, that of opening the initial 90-mile link between Key West, Fla., and Havana, Cuba., in the first American tri-motored plane to be used by an American airline. That laboratory route, to which he was chief explorer, test pilot, estimator, dispatcher, etc., had since grown to more than a 50,000-mile network, with him at the head of its piloting personnel all the way.

The line once established, the veteran trail blazer who conquered the Pacific in a routine manner, took the post of head of the Caribbean Division of Pan American Airways, which then included the longest over-water run in the world (664 miles between Cristobal, Panama Canal Zone, and Kingston, Jamaica). He utilized that line for further experimentation and data gathering, later applied to the San Francisco-China run, which he pioneered in 1935.

Credit also is generally given to Captain Musick for completing the education of the Pan American Airways first line pilots. His reports indicated that he was more than an airplane pilot. He was an expert navigator, scientist, meteorologist and, most of all, an economist. One Pan American Airways official declared that Musick never once made an impracticable suggestion or recommendation. He aided in establishing a safety record for his airline claimed in some quarters to be unequalled by any other airline in the world.

The crew of six men aboard the ill-fated clipper boat were Major Cecil G. Sellers, first officer; Paul S. Brunk, junior flight officer; F.M. MacLean, navigator; J.W. Stickrod, engineer officer; J.A. Brooks, assistant engineer officer, and T.J. Finley, radio officer.

Major Sellers held a commission in the Air Reserve and the rating of "Airplane Pilot." His affiliation with Army aviation dated from February 24, 1917, when he enlisted as Sergeant in the Signal Enlisted Reserve Corps at Fort Monroe, Va. Just prior to that time he was a student in his junior year at the University of the South, Swann, Tenn. He was born September 5, 1893, at Dyersburg, Tenn.

Major Sellers started his flying training at Newport News, Va., and several months later was transferred to Kelly Field, Texas, for advanced flying training. In September, 1917, he was ordered to duty overseas and was sent to Clermont Farrand to establish the 7th Aviation Instruction Center. He flew with the French until the school was established and was in command thereof for several months. For seven months he was flying continuously while holding the position of test pilot and commanding officer of the detachment at the 7th Aviation Instruction Center. He also availed himself of the opportunity to pursue advanced instruction as a Bombardment pilot.

Sent to the front in May, 1918, with the 96th Squadron, 1st Day Bombardment Group, Major Sellers (then a first lieutenant) was in August of that year given the command of the 20th Squadron. During his service at the front as commanding officer and flight commander, and until the beginning of December, 1918, he tested most of the airplanes in the Squadron, as very few officers had flown D.H. planes with bombs before joining his organization. His flying time at the Instruction Center and at the front totaled nearly 600 hours, of which about 80 hours were over the front lines. He participated in the St. Mihiel and Meuse-Argonne Offensives, and while at the front participated in 32 bombing raids in enemy territory.

Major Sellers was awarded the Distinguished Service Cross, with the following citation:

"For extraordinary heroism in action near Longuyon, France, 16th September 1918.

"Starting on a very important bombing mission with five other planes, Lieut. Sellers, pilot, went on alone when the other five machines were forced to turn back. On crossing the enemy lines he was attacked by three enemy planes, but continued towards his objectives while his observer kept them at bay. In the face of this hostile opposition the objective was reached and their bombs dropped.

"On the way back four more planes joined in the attack, but fighting them off they reached our lines with valuable information after a flight lasting 38 minutes."

Following his return to the United States, Major Sellers served for two months in the Training and Operations Group, Office of the Director of Air Service, Washington, D.C., and was then ordered to border patrol duty at El Paso, Texas, in command of the 96th Squadron. During that part of his military service he accumulated nearly 400 hours additional flying time. He was honorably discharged from the service, March 25, 1930, and commissioned a Captain in the Reserve Corps. At various times he served short active duty tours at Langley Field, Va. His total flying time exceeded 8,500 hrs.

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MILITARY AVIATION NEEDS OUTLINED BY CHIEF OF THE AIR CORPS

In a statement prepared for the first National Aviation Planning Conference, which was held on January 11, 1918, at Cleveland, Ohio, Major General O. Westover, Chief of the Air Corps, stated:

"First, I want to say emphatically that this National Aviation Planning Conference, to my mind, is one of the most forward looking steps ever initiated in aviation circles. It augurs the inception of a comprehensive program; it initiates a definite plan toward which all of us who are interested in phases of aeronautics can pursue to our own benefit and at the same time aid our allies.

"I have been affiliated with military aviation for many years. I have seen many intelligent programs initiated for the advancement of military flying, but this is the first time within my knowledge that all aviation agencies, governmental and civil, have sat down and thought out one comprehensive schedule for work, one directive for all our effort.

"In the second place, I want to congratulate Major Aldrin, who was chairman of the committee which worked out the military subdivision of this joint plan. His committee has placed in a few succinct sentences our major problems. The work of this group makes it evident that its members were thoroughly conversant with the problems and needs of military aviation.

"For the benefit of those who were not able to sit in at the meetings of the military subcommittee, and for those who are not so conversant with the army air picture, I shall review briefly, indeed, the army's side of the national defense setup. The consolidated program of the national planning body under the heading 'National Defense Army' contains three important paragraphs. The first of these reads: '1. There should be no retroaction from the present War Department program to supply a minimum of 2320 combat airplanes to the Army Air Corps by 1940, and necessary appropriations should be made by Congress to that end.'

"I believe that many of you have seen a statement, widely quoted in the press recently, wherein Jane's 'All the World's Aircraft' stated:

> 'The United States possesses one of the biggest and possibly the most efficiently armed Air Forces in the world.'

"The average layman, having seen that statement, may well ask: 'If the United States possesses the leading military air power in the world today, why build the 2320 airplanes?' The fact of the business is that the United States, lumping both the Army and Navy together, does not in point of numbers of airplanes possess the largest military air fleet in the world. It now ranks about fourth among the world's powers, including planes of all types.

"On the other hand, as to quality, that is, perfection of airplane types, organization and training of personnel, and in tactical plans and proficiency, I believe our Army and Navy air components are the finest in the world.

"A board of high ranking Army officers, headed by Major General Hugh Drum, after careful consideration, determined upon 2320 as the number of airplanes needed in the Army Air Corps to provide us an adequate army air component. The Baker Board, appointed by President Roosevelt to look into the whole subject of military aviation, arrived at the same figure. Their studies agreed fully with the findings of the Drum Board.

"When those 2320 airplanes are provided as the Secretary of War has stated, we will then have the determined number requisite for our army needs in peace time. These 2320 planes will give us more than twice the number of effective combat planes we now have. It is something toward which to look. It is the first important and significant step. Your committee, the National Aeronautic Association, and all air minded bodies in this country, can perform no greater service to our Army than to promote unceasingly the campaign to insure that the Army Air Corps will by June, 1940, have 2320 effective flying machines.

"In discussing airplanes, a second caution may be well placed. These planes when procured must be of proper types. If we went out tomorrow and bought 2320 small Pursuit airplanes, our Army Air Force would be but little more potent than it is today. The program must be a balanced one between the different types of military craft - Bombardment, Attack, Pursuit and Reconnaissance. The Bomber is the basic subdivision in the Air Corps, just as the Infantry is the basic arm in the ground forces. We cannot afford to be satisfied with just any 2320 planes. A proportion of these must be the best Bombing planes obtainable in this country today. Our own experience and service test in the Air Corps last year proved that our large 4-engine Bombers, commonly called the 'Flying Fortresses,' are very efficient and highly satisfactory.

"When we are asking our Congress for funds for fighting planes, we must make clear what types of planes we require, and we cannot afford to be satisfied with less efficient substitutes.

"The second paragraph of the National Program under the heading of 'National Defense, Army,' reads as follows:

> '2. An increase in operating funds and in funds for the procurement of accessories such as engines, plane and engine instruments, navigational equipment and armament commensurate with

the increased plane strength should be provided. The flying fields, air bases and ground installations needed as the planes are supplied should be provided in properly balanced increments.'

"I have never seen a clearer nor more thorough delineation of a subject all too frequently overlooked, in computing the strength of air aemament. It is basic and fundamental that airplanes alone do not make an Air Force. The finest planes in the world will be futile and ineffective unless they possess up-to-the-minute guns and bomb sights; the latest planes designed will be unable to operate effectively to find their targets and deliver their devastating messages unless they be equipped with the best flight instruments and navigational equipment yet developed. The finest Air Force yet imagined would be unable to utilize its maximum force were it not provided with suitable air bases and serviced by proper ground installations.

"So, when we come to making our estimates for a well rounded, balanced air program, let us make sure that funds are provided for the accessory equipment and the ground set up without which we can never have an effective air defense no matter how many planes we have.

"The third paragraph of the program reads:

'3. The remedial legislation recommended by the War Department to ameliorate the serious situation now existing whereby it is not possible to provide additional needed personnel for the Air Corps, should be given strong support.'

"An unbiased evaluation of our deficits in the air today shows that our personnel needs overshadow all others. The War Department has suggested legislation which will tend to remedy this condition.

"If we could offer a certain number of the young graduates of our Air Corps Training Center permanent commissions in the Regular Army Air Corps, we could within a very few years remedy the personnel situation so far as commissioned pilots, bombers and navigators are concerned.

"Last year the appropriation act provided an increase from 300 to 550 Reserve officers on extended active duty for periods from three to five years. For the Fiscal Year 1939 the number proposed is 857. And yet, so far our experience has been disappointing. One of the Major reasons appears to be that one can scarcely expect a young graduate of our flying school to be enticed into taking on a job which is definitely temporary and which pays him less than one-half in salary what he could obtain as an airline pilot. If we could offer more of them the inducement of a permanent commission, a considerable proportion would enter the military service.

"Here is another consideration on this score. If we take a Reserve officer and spend from three to five years giving him invaluable training on newest equipment, it is a tremendous waste to cast him out. Within a few years the advances in aeronautical science and the fact that he has been out of flying and out of touch with aviation during that intervening time will cause him to be no longer a suitable member of a combat team in a modern multi-engine Bomber. We shall have lost all that time, effort and expense we spent in training that invaluable crew man.

"While the three paragraphs from the National Program which I have read are all that is contained in that section devoted to national defense army, there is another section about which I am greatly concerned and which bears very prominently on national defense. That is the state of our organized reserve.

"No more difficult problem confronts the War Department today than the subject of the reserve military aviator. The great complexity of the modern flying fighting machine has served to intensify this problem. It is no longer possible to take a Reserve officer on 14 days' extended active duty and make him a satisfactory member of a combat team for a Flying Fortress.

"There are, however, other places in the Army Air Corps which Reserve officers can fill and for which they must be provided and given training. They will be particularly valuable in procurement planning. Recent graduates of our flying school probably by annual limited training periods, can be kept in a state of sufficient training for several years so that they can man our smaller combat types, particularly Pursuit and Reconnaissance. Many of our school and executive positions, and a considerable proportion of our air base work, supply, engineering, etc., can undoubtedly be done in event of emergency by our older and more experienced Reserve officers.

So the crux of the matter is this - we must continue to maintain an active Air Corps Reserve. We must provide sufficient inducement to our patriotically inclined, air minded civil component members, so that they will continue to maintain their effectiveness and so that we can retain their interest in our Army Air Corps.

"Any plan which will accomplish these results will be supported whole heartedly and enthusiastically by the Air Corps at every opportunity.

"Now, as a final remark, let me suggest that whereas planning is a very fine thing, an essential ingredient to any successful endeavor, would it not be advisable at our next National Aviation Planning Conference for us to take stock and see what of that which we have planned here at this meeting has been put into

(Continued on Page 5).

IMPROVEMENT IN BOMB DROPPING TRAINING

Staff Sergeant Ernest Chaput, of the 49th Bombardment Squadron, Langley Field, Va., has made vast improvements in the trainer and target which are used to train student bombers before the actual dropping of bombs. These modifications simulate as nearly as possible the same conditions which are encountered in dropping bombs on moving targets.

A trainer with switch panel is located in the pilot's compartment to control the trainer and target. The above panel has a release mechanism to aid the student in the amount of trail to allow for various air speeds. The speed of the trainer can be controlled from the panel so as to enable different trails to be set up for each approach. Most of the controls in the panel, such as switches, release handles, etc., are installed in the trainer, duplicating the same controls which are found in an airplane.

The target has been radically changed from the original model. The plumb bob, which recorded hits, has been replaced by a system of electro magnets. This device permits train bombing to be simulated with the train release mechanism connected into the trainer clock. This has been impossible heretofore.

The target is remotely controlled, with reference to speed and direction, from the panel on the trainer. Also, the course of the target is shown from the pilot's compartment of the trainer. With these modifications the target can be directed on any kind of a straight or curve course. It can be made to follow any outline of track of a moving target. The trainer target can be set to give any automatic zigzag course at any desired rate of speed and amount of turn.

All these modifications which the 49th Squadron has made have been due directly to Staff Sergeant Ernest Chaput's work.

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A LETTER OF APPRECIATION

The Mayor of the City of Newport News, Va., in a letter, dated December 27, 1937, to Colonel W.R. Weaver, Commanding Officer of Langley Field, Va., wrote as follows:

"My dear Colonel:

I desire to convey to you and your co-workers the thanks of this community in appreciation for the splendid Christmas gift you bestowed on the needy of our City. The success of our Christmas Fund was largely attributed to your gift and many hearts were made glad that would otherwise have had a most dreary yuletide.

It was a noble act on the part of our neighbors who make their homes at Langley, for there was no obligation on their part to aid the surrounding communities; they could have used the proceeds from the Charity Fair for their own purposes, and no one could have condemned them for the doing. It was most unselfish on your part, and your act will go a long way toward more closely cementing the already friendly and cordial spirit existing between your community and my community.

I am sure I speak the sentiment of my people when I say we most sincerely thank you and wish for you and all concerned in the welfare and advancement of Langley Field a most wonderful future, not alone for 1938, but for each year following as well, and, with kindest personal regards for you and your associates, I am

Sincerely yours,
(s) B.G. James
Mayor."

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Military Aviation Needs
(Continued from Page 4).

effect during the year. With the thought that all of us are checking on the progress of our plan ever in mind, it seems to me it will be an added incentive for executive action, for tangible results to flow from these admirable and excellent plans which you gentlemen have here devised."

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CHANGE OF STATION FOR COLONEL BRADLEY

Colonel Follett Bradley, Assistant Chief of Staff, GHQ Air Force, Langley Field, Va., recently received orders transferring him to Moffett Field, Calif., effective about the middle of February.

Colonel Bradley has served in his present capacity at the Langley Field Air Base for the past three years. "Fellow officers at this command and residents of the Lower Peninsula," says the News Letter Correspondent, "had nothing but praise for the popular officer who has served off and on for a number of years at the local post."

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The BT-9B utility airplane continues to fill a long felt want in the 20th Bombardment Squadron, Langley Field, Va. In the six weeks it has been in the Squadron it has been flown 130 hours, covering the country from coast to coast and from border to border.

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The following-named personnel of the 2nd Bombardment Group, GHQ Air Force, Langley Field, Va., recently departed from that station enroute to Santa Monica, Calif., to obtain B-18 airplanes: Lieuts. John W. Egan, Joseph B. Stanley, William A. Matheny, Gerald E. Williams, Curtis E. LeMay, Douglas M. Kilpatrick, Staff Sergeant Spicer, Sergeants Holmes, Seidl, Billy, Private 1st Class Allison and Private Norman.

V-7602, A.C.

MORE SEED PLANTING FROM THE AIR IN HAWAII

The practice of dropping from airplanes certain varieties of seeds to prevent erosion of various barren areas in the Territory of Hawaii has in past years borne fruitful results, in view of which fact a project of this character again was carried out recently by the 23rd Bombardment Squadron at Luke Field, T.H.

The News Letter Correspondent states that although the 23rd Squadron has a stiff training directive to comply with, its routine missions are interspersed with many varied and unusual tasks. Especially to the pilots in this Squadron, none of whom have been in the Hawaiian Department more than a year, was the interesting mission accomplished on the Island of Kauai during the first part of December.

After one false start, because of bad weather conditions, the 23rd Bombardment Squadron took off for Burns Field, Kauai, on the morning of December 1st. The Douglas C-33 with a load of baggage and men preceded the flight of six Keystone Bombers across the channel. Camp was established, and the next morning found everyone ready for the mission at hand.

Under the personal supervision of Mr. A. Duvell, the Kauai representative of the Board of Agriculture and Forestry for the Territory, five Keystones were loaded with about one thousand pounds of seed per plane, the seed being in 100-pound sacks. The purpose of this was to scatter the seed so that it would land on the barren terrain on certain designated parts of the island and help Mother Nature prevent the rapid erosion that is taking place in this vicinity.

Three such flights were made, and about twelve thousand pounds of seed were sown in this manner. The planes would fly in an extended echelon covering a wide front, a mechanic in each ship letting the seed out slowly from the sacks in the planes. Time will tell whether the seed will all take root on some of the sheer sided canyons and wind-swept ridges and so accomplish the desired results.

Approximately ten thousand pounds of seed were dropped over a wide area in the Nepali and Kokee regions, and about two thousand pounds were dropped in the Kealia and Nounou reserves.

The News Letter Correspondent states that "in addition to clearing the field, which was under construction and left much to be desired in the way of take-off space, the planes were burdened with seed, the very names of which would make even the good old faithful Keystones stutter and stammer. The first loads consisted of sacks of seed of the following tongue twisting varieties: haole kea, myrica naya, and arcacia dealbata. These names in themselves are enough, it seems, to more than prevent erosion of any kind; but just to make sure, the remaining loads carried in addition to the above named varieties such seeds as: melaluca leucadendion, psiduin cutleyana, and passiflora edulis.

The seed planting project was completed in one day, and the rest of the encampment period was used to carry out training flights and to acquaint personnel with the island of Kauai. Trips to the CCC Camp at Kokee for everyone, topped off by a big steak dinner for all hands at that camp, with sight-seeing trips to Waimea Canyon, all stand out as high lights of the trip.

The Squadron returned to Luke Field on the morning of December 7th, with another period of field training under its belt, and settled down for the short remaining period prior to the holiday season."

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HAWAIIAN A.D. HANDLES DIFFICULT SITUATION

According to the News Letter Correspondent, a situation practically unknown to mainland depots arises at the Hawaiian Air Depot, Luke Field, when forced landings are made on the other islands. This Depot has been called upon to handle the details of inspection and the forwarding of supplies on such occasions, several of which have occurred during the past few weeks. Quartermaster water facilities must be obtained for large items, such as wings, and special flights accompanied by an amphibian airplane for transporting engines and smaller supplies. Even commercial water transportation is sometimes required. Although these emergencies require cooperation and fine liaison between the various activities, each one is handled with expediency and surprisingly efficient results.

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NO FORCED LANDING IN OVER A YEAR

When Captain M.R. Nelson, Air Corps, commanding the 55th Pursuit Squadron, Barksdale Field, La., departed for Mitchel Field, L.I., New York, on an extended navigation training flight on November 10,1937, and was forced to glide his airplane into the Department of Commerce emergency landing field at South Boston, Va., due to engine failure, it marked the first forced landing in this organization since that of 2nd Lieut. Horace A. Sheppard, Air Reserve, in his P-26A airplane at Tallulah, La., on September 20, 1936.

The News Letter Correspondent adds that "We are happy to convey the incident as an emergency forced landing rather than report an aircraft accident."

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SOME SIDE LIGHTS ON THE EARLY DAYS OF AVIATION

An interesting story on the early days of aviation is told by Major Albert D. Smith, Air Corps, Retired, now with the T.W.A. as Superintendent of the Mountain Division at Albuquerque, New Mexico.

A pioneer in the flying game, Major Smith evidenced unusual ability as a mechanic by building his own airplane back in 1910, learning to fly it and subsequently becoming an expert pilot. In fact, during his service as a commissioned officer in the Air Service in the World War and for several years thereafter, he was considered one of the best pilots and flying instructors in the Army. He enjoys the distinction of being the first man to cross the American continent and return in an airplane. In 1914, he led the search into Mexico for two lost aviators, and afterwards declined a flattering offer from the Japanese Government to take charge of the development of aeronautics by the Japanese Army, preferring to give his services to his own country.

Born on February 6, 1887, at Farley, Mo., he graduated in 1904 from high school at Lamont, Okla., and shortly thereafter he enlisted in the U.S.Army and was ordered to duty in the Philippines. He joined "E" Company, 22nd Infantry, at Camp Marahui, P.I., August 2, 1904, and participated in many skirmishes against Moro tribes in the Lake Lanao district. He was a member of General Wood's third Sulu Expedition to the Island of Jolo, April and May, 1905.

When he was honorably discharged at San Francisco on April 26, 1907, with the grade of Sergeant, Major Smith was then twenty years of age. During the next three years he resided near Alameda, Calif., and was employed at Oakland. He spent much of his time in a shop where a glider plane was under construction. This glider was intended to be catapulted from a carriage on a ramp incline. The glider was too heavy, however, and the first landing on skids resulted in a crash. Major Smith did not pilot this glider.

In the year 1911, he settled on a homestead in Flathead Indian Reservation, Montana, where some little time was spent reading up and making a general study of what was going on at that time in the aviation world. Another homesteader in this reservation, B.F. McClellan, who in previous years conducted free balloon exhibition flights at various county and State celebrations over the country, made a proposition to Major Smith that they jointly construct a pusher type plane and, to use the latter's words, 'that I could, if capable, act as pilot while we toured the country making exhibition flights, as he had done with the old smoke-inflated balloon.' It now developed that McClellan had previously constructed a Curtiss pusher type plane, but this had been wrecked and was then stored at Spokane, Wash. One crashed pusher and one Maximotor engine of questionable condition were the entire assets. For one-half interest in these assets I exchanged one span of good horses, harness and wagon.

"To enable me to accompany McClellan to Spokane to start work on the new plane, all my farm assets were sold at public auction. The farm was leased. We arrived in Spokane in the winter of 1912 and proceeded to start work in a garage which was rented for the purpose. Very little material was usable from the crashed plane, and new materials had to be purchased. Our joint finances were pooled, and one chicken incubator factory nearby received a large order for straight grained clear pine lumber. One wholesale carpet house in Spokane found its entire supply of long length bamboo carted away by two persons of questionable intentions.

"We knew nothing of metal heat treating processes, hence the fittings were cut from raw sheet metal and bent to correct angles. For bolts ordinary carriage or machine bolts were used. Rudder and stabilizer hinges were ordinary cabinet variety, attached with screws, which frequently gave trouble as a result of the spars becoming wet.

"For turnbuckles, ordinary motorcycle spokes were used. Piano wire served for rigging. Fabric covering was ordinary bed ticking, and the dope was a concoction of water, glue, alum, etc. As might be imagined, this gave considerable unnecessary weight to the craft. This dope mixture was not impervious to moisture or temperature, which fact gave us no end of trouble later on.

"The propeller was laminated from three-ply pine and walnut, and was glued up in a furniture factory in Spokane. This was later finished up by hand with ordinary carpenter tools by a man we employed for the job by the name of Arneson from templets furnished by us.

"In the spring of 1913, about February, following some five or six weeks of Curtiss training method, or 'penguin' work, as we now refer to this method, I took this pusher plane in the air for its initial flight. The duration of the flight was twelve minutes, and the maximum altitude was approximately seven hundred feet.

"Short hops continued for the next thirty days when, with our finances dangerously low, it was deemed advisable to find some source of income. We contracted with the Liberty Lake Park Board, about forty miles east of Spokane, to make three exhibition flights at that popular public resort over the week-end. To stimulate business at the resort and

provide for us much needed publicity, I piloted this plane from Parkwater, on the river east of Spokane, to Liberty Lake, and while flying low over the many settlements dropped the morning edition of a Spokane paper. For this stunt at the time I was accredited with having flown the first mail delivery, as these papers were normally delivered to the rural settlements via post office carrier.

"At Liberty Lake the first two flights were completed without incident. On the third and last landing, one of the spectators stepped out better to observe my approach, which forced me to ground-loop partially, resulting in a badly damaged wing. The plane was trucked back to Parkwater and work was immediately started to rebuild the damaged wing section.

"The next exhibition flight was made at Reardon, Washington, some ninety miles west of Spokane. The plane was trucked out from Parkwater, but was flown on the return trip. For this return flight it was necessary to land at Fort George Wright for additional fuel, and where I was most courteously received by the Commanding Officer, who provided me with five gallons at no cost. From Fort George Wright I passed dangerously low over the city of Spokane. This was the first airplane ever to make this trip. The flight terminated at Parkwater without incident.

"Exhibition flights were much in demand during this year, 1913, and we continued to receive bookings from the several nearby States, especially Idaho and Montana. The year ended with no cash on hand and with equipment in bad shape.

"During the winter of 1913-14, additional wing sections were built up between odd jobs we were required to seek to enable us to survive. The spring of 1914 saw us on the road again. Engine failure at Sandpoint, Idaho, demolished the plane. Thirty days later, an attempted high-altitude take-off at Harlow Town, Montana, resulted in another crash.

"In my numerous minor crashes I had as yet not received a single injury. But as little as I knew about flying, it was quite obvious that this good luck could not continue. I had been approached at various times with flying propositions, one of which would take me to Japan. On this last crash at Harlow Town, I vowed then and there never to pilot this plane again, and I presented my partner, McClellan, with our entire airplane assets after all outstanding bills were paid and cash on hand divided equally. I boarded a train from here to San Francisco, enroute to Japan, but when I arrived on the coast it was found that several days would elapse prior to boat sailing. In the interval of waiting, I continued on to San Diego where, according to the papers, the Army was doing big things at North Island. I arrived at San Diego about August, 1914.

"At this time Captain A.S. Cowan was the Commanding Officer at North Island. This Aviation Detachment, or School, was then known as the "Aviation Branch of the Signal Corps." In several more or less improvised hangars, the equipment consisted of a few Burgess planes, equipped with Renault engines. As I recall, they also had one Burgess-Dunne plane. Pushers had been discarded for tractor type planes, as the former had caused several recent fatalities which could be attributed directly to pusher type engine installation. At this time, William Lay Patterson was Post Secretary; Edgar S. Gorrell was Assistant Secretary; W.R. Taliaferro was Officer in Charge of Training; Oscar Brindley was Civilian Flying Instructor and Francis A.Wildman was Civilian Flying Instructor on the Curtiss Flying Boat, which was received during the winter or early spring of 1915.

"This North Island flying activity appealed to me immensely and, after having discussed several times with Captain Cowan my enlistment, I enlisted on March 10, 1915, in the Signal Corps, Aviation Section, at North Island. Enlisted men then assigned to pilot training, or who were actually making solo flights at that time, included Sergeants Ocker,* Marcus and Burge.*

"As would naturally be assumed, prior to my enlistment I spent much time at North Island observing the early morning student flights around the field. If you could provide a photographic account of the airplane crash on November 5, 1914, in which Mr. Glenn L. Martin, builder and pilot of the plane, and Lieut. L.E. Goodier, passenger, crashed just south of the old E. & R. shop, you would note that I was the first person to arrive on the scene. It so happened that I was protecting myself from the morning chill in the sunshine along the south wall of the shop building, which naturally placed me near the crash location. I was also present at North Island on December 23, 1914, when Capt. Dodd won the Mackay Trophy race against a field of 'old timers,' such as Captain Geiger, Lieuts. Muller, Morrow, Milling, Taliaferro and Carberry. Lieut. S.W. FitzGerald accompanied Captain Dodd on this history-making flight. I also recall that I was present on the Island on December 21, 1914, when Lieut.Muller, with Lieut. Gerstner as passenger, landed in the ocean, and the latter drowned in attempting to swim ashore. Lieut. Muller remained with the plane and was rescued.

"Following my enlistment, I was assigned to one of the hangar crews. Ocker was Crew Chief, and our job was to give proper maintenance to the Curtiss Flying Boat being used by Wildman for instruction purposes.

*Now Lieut. Colonels in the Air Corps.

"July 7, 1915, was the happiest day of my life when Lieut. Taliaferro instructed me to report to Mr. Oscar Brindley for dual training. At this time I had some forty hours of pilot logged time to my credit on identical controls such as then used in the tractor planes, other than the fact that I had previously used foot throttle on my pusher plane. This first dual instruction flight on this date was the beginning of my military flying, and to my knowledge no official order was issued covering the assignment. But few dual instruction flights were given me, as would be indicated by the fact that on July 10, 1915, my first solo flight in a military plane was made. During this same year I was promoted to the grade of corporal.

"My records would indicate that at this time very little actual repair work was being done in the shop under supervision of the Civilian Engineer, Grover C. Loening. He was at the time concentrating on major construction changes in the Burgess planes. With permission received from Lieut. Taliaferro, Mr. Seminook, Private Kuhn and myself opened up a repair shop in one hangar wing, where we rebuilt and overhauled wing sections and fuselages which had previously been returned to the factory for repairs. The need for this local repair shop was evidenced by the fact that it very quickly took in the entire hangar. Private Gordon Smith and myself took over the entire job of fabric covering wings, etc., while Private Kuhn remained in charge of the woodwork. Mr. Seminook proved to be expert in metal work, and he either repaired or fabricated new metal fittings. Irecall that Sergeants Barnhardt, Ocker, Parkinson, Krull, Steinle, Sweet, Marcus and Burge were instrumental in final assembly work. Biffle and Coyle were crew chiefs, and they assisted in the general repair work. At this same time, Mr. George E.A. Hallett was instructing pilot officers in engine overhaul. I was later assigned the function of instructing these same officers in airplane assembly and maintenance.

"For Hydroplane record, I hold the Aero Club of America Aviation Medal of Merit, which reads: "Corpl. A.D. Smith, American Hydro Record Duration, Feb. 19, 1915, 8 hrs. 42 min." This duration record was made in a Martin hydroplane, with a Hall Scott engine, around the San Diego Bay area.

"On February 15, 1916, Mr. Floyd Smith, Civilian Test Pilot for the Glenn L. Martin Company, established a new world's altitude record for pilot and three passengers, climbing to an altitude of 9,603 feet. I was one of the passengers.

"While on leave of absence in the early spring of 1916, I was employed by the Glenn L. Martin Company as a test pilot and school instructor.

"In the summer of 1916, I was again approached by Japanese interests, Mitsui Company of San Francisco, with a rather fabulous offer if I would go as test pilot for the Day Aircraft Company of Plainfield, N.J. This information was transmitted to me by Colonel Glassford, Commanding Officer, who suggested that perhaps I would be interested in being employed as Civilian Flying Instructor in the same capacity as Brindley and Wildman. He would obtain for me my discharge from the service.

"On August 17, 1916, I was honorably discharged for the convenience of the Government and was immediately employed as Civilian Flying Instructor at North Island. I might add that prior to my being employed in a civilian capacity as instructor, I had been carrying on this instruction work under the rating of Sergeant."

Major Smith continued with flying instruction in a civilian status until June 25, 1917, when he was appointed a Captain in the Aviation Section, Signal Reserve Corps. He was scheduled for duty at Park Field, Millington, Tenn., but his orders were amended October 11, 1917, and he was assigned to station at McCook Field, Dayton, Ohio. He was rated a Junior Military Aviator, effective March 8, 1918.

In April, 1918, Major Smith, together with Colonel Henry J. Damm and Major Oscar A. Brindley, was assigned the task of testing a DH4 plane, powered with a Liberty engine, under service conditions at McCook Field or at the factory at Dayton. Sad to relate, in the following month Major Smith was appointed as a member of a Board of Officers to investigate the cause of the airplane accident on May 2, 1918, which resulted in the death of both Colonel Damm and Major Brindley. Himself suffering from the after effects of an airplane accident in the spring of the year, he was confined in the Army and Navy General Hospital at Hot Springs, Ark., for several months, following which he was assigned to Rockwell Field, Calif., for duty.

A memorable event was the first formation flight of military planes across the American continent. Led by Major Smith, a five-airplane squadron ("Jenny" planes, powered with Hisso engines) departed from Rockwell Field on December 4, 1918, for Carlstrom Field, Arcadia, Fla. The flight continued on to Washington and New York and returned to Rockwell Field in February, 1919. The total elapsed flying time was 109 hours and 25 minutes.

In 1919, Major Smith was in charge of forest fire patrol operations in the Pacific Northwest. In the following year he was transferred to March Field, Calif., where he commanded the Pilot School Detachment. From April to September, 1920, he was confined in the Letterman General Hospital, undergoing treat-

(Continued on Page 15).

THE FIRST ARMY OFFICER TO FLY SOLO

The much mooted question as to who was the first Army officer to solo an airplane appears to be definitely settled, according to reliable data recently received in the Information Division, Office of the Chief of the Air Corps.

As a matter of history, the first officer of the Regular Army of the United States to fly an airplane alone was Lieut. Thomas E. Selfridge, Field Artillery, who, incidentally, was also the first Army officer to lose his life in an airplane accident. This lamentable accident occurred on September 17, 1908, at Fort Myer, Va., when Lieut. Selfridge made a flight as passenger with Mr. Orville Wright. The following brief account of this accident appeared in Collier's Weekly of October 3, 1908:

"On September 17, after making three complete circuits of the Fort Myer Parade Ground, the Wright aeroplane broke a propeller blade and fell to the ground. Lieutenant Thomas E. Selfridge of the Signal Corps, United States Army, received injuries from which he died three hours later. Mr. Wright escaped with his life, but was painfully hurt.

Rarely, indeed, has the perversity of inanimate things brought about a more dramatic and painful tragedy. The smallness and unimportance of the immediate cause made the result seem all the more deplorable. The accident resulted from no miscalculation, nor did it have anything to do with the general principle embodied in the Wright machine, which had already brilliantly established its ability to navigate the air. It was one of those unforeseen and probably unpreventable things, like the breaking of a tire or the spreading of rails, and this apparently trifling accident resulted in the destruction of the Wright aeroplane, just as it was about, with every apparent chance of success, to undertake the tests prescribed by the War Department, in the maiming of one of its inventors, and in the death of one of the most promising young men in the army.

Mr. Wright had spent several weeks in successful demonstrations of the aeroplane, and he had broken all records for a flight with a heavier-than-air machine. That he had not passed the tests and thus secured the prize which the long years of experiment he and his brother had gone through so surely promised, was due merely to that endless patience and painstaking attention to detail with which the Wrights have worked from the beginning. They have not the slightest desire for notoriety and have allowed no attempts of press or public to hurry them, or deflect them for a moment from their methodical course.

The fatal flight on which Lieutenant Selfridge was taken was part of Mr. Wright's preparation for the Government tests, which called for a machine which would carry two men. For this flight new propellers, nine feet long instead of eight feet six inches, were put on the machine. These propellers had been tested in the shed, but this was their first test in flight. The machine circled the parade ground with its usual success until, just as it was turning at an altitude of about seventy-five feet, one of the propeller blades was broken off and fell to the ground. Mr. Wright at once shut off the engine. The machine careened and started downward. For a distance of about thirty-five feet it glided slowly through the air, then suddenly pitched forward and fell to the ground. Both men were pinned under it."

In the death of Lieut. Selfridge the Army lost one of the best posted men in the field of aeronautics at that time, a student and a man of practical ideas. Selfridge Field, Mt. Clemens, Mich., the station of the First Pursuit Group of the Army Air Corps, was named in memory of the man who was the Army's first sacrifice to the science of aviation.

At Hammondsport, N.Y., where the late Glenn Curtiss was conducting his flight experiments, Lieut. Selfridge made short flights alone of 100 and 200 feet on May 19, 1908, and flew again at various times during July and August. On August 2, 1908, Lieut, Selfridge flew alone one minute and 30 seconds, rising to a height of about 75 feet. On August 3rd, he flew 800 yards in 50 seconds. While these flights are not long, certainly the one on August 2nd establishes the fact that Lieut. Selfridge should be considered the first Army officer to fly alone.

Note: The above information was extracted from a collection called "Lieutenant Selfridge Memorial," containing the bulletins of the Aerial Experiment Association, together with miscellaneous notes, press bulletins, etc., which collection is bound in five volumes and deposited in the Library of Congress.

Now, with respect to Lieut. Humphreys and Lahm, who in some quarters have heretofore been credited with being the first Army officers to solo an airplane, the flights of these officers occurred as shown in the following quotation personally given by Colonel Lahm:

"The first War Department contract with the Wright Brothers for an airplane required certain performance as to speed, endurance and maneuverability. It also required them to teach two officers to fly the airplane. Lieutenant Humphreys and myself (Lieut. Lahm) were designated, and Wilbur Wright gave us our training at College Park, Maryland, on a field leased by the War Department.

On October 26, 1909, after approximately three hours' dual instruction, extending over several weeks, we were 'turned loose' for our first solo flights - Lieut. Humphreys first, flying three minutes alone, followed on the same day by myself alone, the flight lasting thirteen minutes."

From the above it can be seen that Col. Humphreys was not the first officer of the Regular Army of the U.S. to fly an airplane alone, but such credit must go to Lieut. Selfridge. However, it can be stated that the first airplane owned by the United States Army was flown alone initially by Colonel Humphreys and that, immediately thereafter, such plane was similarly flown by Colonel Lahm.

Following his resignation from the Regular Army, Colonel Humphreys affiliated himself with the New York National Guard and now commands the 102nd Engineers. Colonel Lahm, who some years ago was the Commanding General of the Air Corps Training Center, is now on duty as Air Officer of the Second Corps Area, Governors Island, New York.

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ORDNANCE SCHOOL REOPENS AT LANGLEY FIELD

At the recent official opening of the second course in the School of Aviation Ordnance of the 10th Ordnance Company at Langley Field, Va., Colonel Maxwell, GHQ Ordnance Officer and Commandant of the School spoke briefly on the problem of Ordnance Service to the GHQ Air Force and the importance of trained special personnel to provide such service. He also introduced Brigadier General D.C. Emmons, 1st Wing Commander, GHQ Air Force, and Colonel E. Montgomery, Chemical Warfare Service, GHQ Air Force, who also spoke briefly about the trained personnel required for ordnance service.

The curriculum of the course includes Ammunition Supply, maintenance and assembly for delivery to the combat units of the GHQ Air Force, also the inspection, repair and operation of aircraft armament of all types. Some time is devoted to basic military and automotive instruction.

The faculty consists of Captain E.P. Mechling, Air Base Ordnance Officer and Director of the School; Technical Sergeant R.F. Tokoly, Chief Instructor; Staff Sergeant F.E. Rogan and Sergeant Fred Riley, Instructors.

The following students are enrolled in this course: Staff Sergeant H.V. Jones, 1st Platoon; Private 1st Class J.R. Sarnoski, 49th Bombardment Squadron; Private 1st Class H.M. Powell, 1st Platoon; and Privates R.C. Jones, J.P. King, S.J. Schaffer and Theo.Kovacevich, 1st Platoon, all of Langley Field, Va.; Sergeant V.L. McNeal, 6th Platoon, Barksdale Field, La.; Staff Sergeant L.G. Loper, 3rd Platoon, Selfridge Field, Mich.; Sergeant J.E. Gillespie, 4th Platoon, Hamilton Field, Calif.; Private 1st Cl. L.A. Johnson, 5th Platoon, March Field, Calif.; Private 1st Class C.F. Roller, 2nd Platoon, Mitchel Field, N.Y.; and Sergeant W.R. Murray, 49th Bombardment Squadron, Langley Field, Va.

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MOTION PICTURE FILMED AT LANGLEY FIELD

Mr. Cullen Tate, Director of the flying sequences of M-G-M's "Test Pilot," to be released in March, announced on the morning of January 4th that he expected to break camp on the completion of the day's work.

The movie visitors had been on location for two weeks in front of the 2nd Bpmbardment Group, where atmosphere sequences and part of the story's action had been filmed. The Group cooperated extensively in the filming of this feature picture. All flying sequences were routine Group training from which additional valuable technique was gained.

Doubles filled the roles of Spencer Tracy, Myrna Loy and Clark Gable, the latter playing the lead as an Army flier in the screen version of Jimmy Collins' prophetic book "Test Pilot," written not long before Collins was killed in the last of a series of test dives for the Navy.

Commander Frank Woade, retired Naval aviator, and author of the play "Ceiling Zero," wrote the scenario for "Test Pilot."

With the faithful old B-17's purring sweetly through plenty of footage, and with the 2nd Bombardment Group grinning into cameras from all angles, this new movie will no doubt be a source of much interest to Air Corps personnel.

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PROGRESS PHOTOGRAPHS OF CONCHAS DAM

In response to the routine call from the District Engineer of Conchas Dam, New Mexico, 1st Lieut. Charles F. Densford, photographer and pilot, and Sergeant H.L. Photographer, left Kelly Field on December 17th for northern New Mexico. The purpose of the flight was to make progress photographs of Conchas Dam. Due to rain, snow and fog, the photography was delayed four days. The last of the series of photographs were made on the morning of December 24th, following which the pilot and photographer departed for Kelly Field. At Midland, the San Antonio weather was reported as sub-zero, making it necessary for the two airmen to remain overnight at Midland, while somebody else decorated the tree. The fog at Kelly Field lifted sufficiently for Lieut. Densford and Sergeant Chestnutt to get in shortly after noon, just in time for the turkey.

DISTINGUISHED FLYING CROSS AWARDED LIEUT. ELLIS

Announcement was made by the War Department, under date of January 4th, of the award of the Distinguished Flying Cross to 2nd Lieut. DRoss Ellis, Air Reserve, now on extended active duty at Randolph Field, Texas, for heroism displayed while participating in an aerial flight from Hensley Field, Dallas, Texas, to Oklahoma City, Okla., on April 24, 1937.

The outcome of this flight was tragic, a most promising young officer of the Air Corps losing his life through most unusual circumstances. On the date in question, Lieut. Ellis was a passenger in a BT-9 airplane piloted by the late 2nd Lieut. Robert S. Fisher, son of Col. Henry G. Fisher, Commanding Officer of Scott Field, Ill.

When approximately forty miles north of Hensley Field, flying at about 4,000 feet altitude, the pilot, Lieut. Fisher, was pulled from the airplane by his parachute which had accidentally opened. Lieut. Fisher's body struck the left tail surfaces of the plane, knocking them completely off and badly damaging the rudder. Believing Lieut. Fisher to be only badly injured, disregarding his own safety and mindful only of securing aid as quickly as possible for Lieut. Fisher, Lieut. Ellis displayed great courage when he piloted the badly damaged airplane back to Hensley Field and landed it safely, thereby enabling him to report the accident within 25 minutes of the time it occurred. His action in safely landing the badly damaged airplane resulted in saving it from destruction.

Upon landing the aforementioned airplane at Hensley Field, Lieut. Ellis immediately reported to the Commanding Officer, Major B.S. Thompson, Air Corps, what had transpired. After striking the left tail surfaces of the plane, he saw Lieut. Fisher descending into a wooded area with his parachute open, apparently intact and functioning properly, but that he believed Lieut. Fisher to be badly injured because of the considerable force with which he struck the tail surfaces.

Major Thompson immediately notified the Sheriff of Denton County, Texas, and arranged for searching parties to be sent out to locate Lieut. Fisher. An inspection of the BT-9 airplane revealed that all of the left elevator and all of the left stabilizer, except a small section of approximately 18 inches, were completely missing, and that the rudder was badly damaged.

Major Thompson, accompanied by Lieut. Ellis as observer, then proceeded by airplane to the scene of the accident and conducted a search from the air for Lieut. Fisher, whose body was found approximately at the location reported by Lieut. Ellis. Lieut. Fisher's parachute was still attached to his body and was found to be in good condition, except that one shroud line was broken and the rip-cord "D" ring pocket was almost completely torn loose from the harness. The nature of Lieut. Fisher's injuries indicated that he undoubtedly was instantly killed upon striking the airplane's tail surfaces.

Subsequently interrogated as to the details connected with the accident, Lieut. Ellis, when asked if he realized before landing the plane that to attempt to land it in its badly damaged condition would be dangerous, and that if he did realize the danger why he did not "bail out" rather than attempt to land the plane, replied that he realized the danger of attempting to land the plane, but at that time believed Lieut. Fisher to be only badly injured and, believing there was a fairly reasonable chance that the plane could be flown back to Hensley Field and landed safely, he elected to try to do so in order to be in a position to secure assistance for Lieut. Fisher with a minimum of delay.

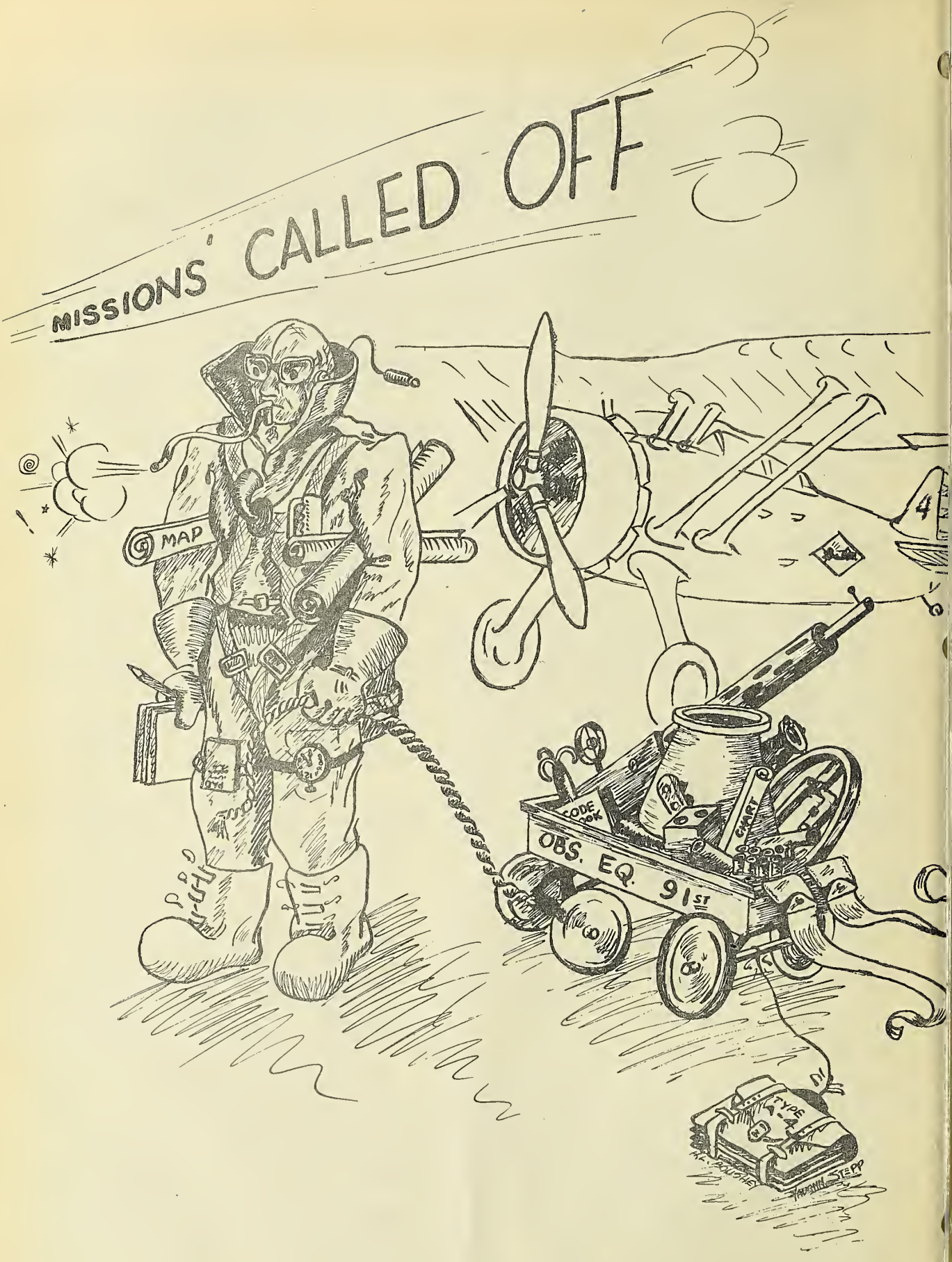
Lieut. Ellis was born at Kemp, Okla., October 11, 1906. He graduated from high school at Stillwater, Okla., and from the Oklahoma A. & M. College in 1930 with the degree of B.S. Appointed a Flying Cadet in the Air Corps, he graduated from the Primary Flying School, Randolph Field, Texas, February 28,1933, and from the Advanced Flying School, Kelly Field, Texas, where he specialized in Observation Aviation, on June 29, 1933, on which date he received the ratings of "Airplane Pilot" and "Airplane Observer," and was appointed a second lieutenant in the Air Reserve.

Assigned to extended active duty with the 88th Observation Squadron at Brooks Field, Texas, he served with this organization until August, 1935, when he reverted to inactive status. On June 1, 1937, he was placed on active duty at Randolph Field, Texas, for a period of three years.

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SELFRIDGE FIELD RECEIVES P-35 PLANES

The first of the 77 new Seversky P-35 Pursuit planes to be assigned to the Squadrons of the First Pursuit Group arrived at Selfridge Field, Mich., the last week in December. Announcing the fact that on January 4th Selfridge Field received a blood-brother when Number Two arrived, having been ferried from Farmingdale, L.I., New York, by 1st Lieut. John W. Egan, of the 17th Pursuit Squadron, the News Letter Correspondent jocosely adds that "Formation flying is now possible."


MISSIONS CALLED OFF
MAP
CODE BOX
CHART
OBS. EQ. 91ST
TYPE A-2
4

ACTIVITIES AT FORT LEWIS, WASH.
By the News Letter Correspondent

"Mission called off" is a very common order being issued these days by the operations officer at the Fort Lewis landing field. The reason for this is that when it's pea-soup foggy, you can't see, and when you can't see you can't fly, and when you can't fly you can't observe, and when you can't observe - well it just "ain't" possible to do an observation mission, and that's supposed to be our mission in life. What's this all about? Only to find some reason for submitting the sketch shown on the opposite page of one of our observers at work as seen by our squadron artist, Private Steppe.

The Sixth Engineers, stationed at Fort Lewis, are now busily engaged in erecting one-half of the steel girder hangar which was shipped to this station about a year ago. Construction was not started until this time, as it was not known for certain that the Air Corps would permanently occupy this field.

On a recent morning frost covered all planes in the open with a coating of rough, snowy ice about 1/8 of an inch thick. This did not appear thick enough to change in any way the camber of the airfoils, and the pilot-observer crews prepared to take off. The first two planes to leave the line failed to take the air after running the length of the airdrome. One of the pilots just wouldn't be convinced that this shallow layer of ice was the cause, and made five attempts before giving up. Coincident with this icing condition was the arrival that morning of Technical Order No. 01-1A-4, describing the dangers of flight or attempted flight under these conditions.

A sigh of relief emanated from all flying personnel when the Materiel Division authorized the survey and salvage of our C-14 Transport. The "old crate" had served its purpose remarkably well during its seven years of active flying life, but we all felt that the old girl was feeling her age and was about ready for the bone yard. No news of a replacement has been received, but we are hoping it will be a multi-engined job with ample range to buck the mountains and weather of this area.

Lieut. Mosman, Air Reserve, returned to the post on December 14th, accompanied by a new co-pilot, the former Miss Katherine Frick, of Portland, Oregon. Mother's warning to her son "fly low and slow, my boy," appears to have gone unheeded in Ormond's case. Nevertheless, it was a neat and fancy piece of headwork on a high altitude speed mission, and Katherine looks like a new record to us all. The "honeymooners" were met at the main gate and given a reception ride around the post which we feel surpasses the famous caisson rides of the Field Artillery and the pontoon rides of the Engineers. The Fordson mule and dolly were converted into a miniature airplane, G.I., complete with controls, bucket seats, parachutes, helmets, and goggles. The love birds were tooted through the quarters area preceded by the 10th Field Artillery band in a drizzling rain, which made the open cockpit model slightly damp but which went unnoticed by the Mosmans. Happy landings!

Lieut. David H. Kennedy, radio wizard, fresh from the Air Corps Technical School, reported in and was immediately set to work to straighten out the communications department which nowadays seems to be the chief bugaboo of aerial operations. We wish him luck.

Major Guy "Mac" McNeil departed on leave December 17th from this station enroute to the Philippines on the January boat.

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SELFRIDGE FIELD RECEIVES NEW SEVERSKY

The first of the "production" Seversky Pursuit airplanes, long awaited by the pilots of the First Pursuit Group, who are due to receive sevent-seven of them in all, recently arrived at Selfridge Field. The honor of bringing the ship to the field went to Captain John M. Sterling, Operations and Training Officer of the Group.

As fast as the Seversky plant at Farmingdale, L.I., New York, completes the planes on order, pilots of the various squadrons will proceed by train to Farmingdale, test the airplane they receive for the Army, and fly the craft back to Selfridge Field, where it will assume its place in one of the fighting squadrons. The PB-2A's, formerly assigned to the 27th Pursuit Squadron, have already been transferred to Langley Field, Va., and the remaining P-26's will be transferred to other stations as fast as they are displaced by the Severskys.

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Captain Hilbert M. Wittkop, of the 96th Bombardment Squadron, Langley Field, Va., in B-17 No. 63, with full combat crew, accomplished a night navigation flight to Randolph Field, Texas. He took off from Langley Field at 4:44 p.m., December 19th, but inclement weather delayed the return trip until December 22nd. The elapsed flying time required for this mission totaled 14 hours and 20 minutes.

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The article on machine gun firing efficiency, by Lieut. Norman H. Ives, which appeared in the Dec. 15th issue, elicited much favorable comment. Worthwhile articles of such a nature are a great help.
V-7602, A.C.

OBITUARIES

Tragedy from the skies struck swiftly and surely on the afternoon of December 22, 1937, dampening the gayety and laughter of scores of children having their annual Christmas Party at the Army Hangars, Boston Airport, Mass., the victim being Corporal Harold J. Kraner, Air Corps, parachute rigger and jumper of no mean ability. It was the jump that he made every year for the benefit of the children, impersonating Santa Claus arriving with his toys for the boys and girls of members of the detachment and the officers attached to this station. He couldn't disappoint all those tots waiting eagerly for the arrival of St. Nick by plane, so with the spirit of Christmas in his heart he gaily stepped over the side and floated down and down with fate taking a hand and sweeping him into the harbor to his death.

Born in Pinkerington, Ohio, thirty-one years ago, Corporal Kraner spent his childhood in that State going through grammar and high school. Seeing the opportunities presented by the Army Air Corps, he enlisted as Air Corps, Unassigned, for Chanute Field, Ill., taking the parachute riggers course and graduating with honors. Upon the completion of the course he was assigned to Mitchel Field, New York, and from there was transferred to Boston Airport, where he remained until his death. He was known for his parachute jumping, specializing in spot jumping, being one of the best in the country. As a parachute rigger he had no equal, being well known throughout New England by all who used chutes. He gave scores of lectures to clubs on the use and design of parachutes and had instructed thousands of school children about the use and construction of the same. Various boys clubs and grammar and high school classes were continual visitors to the airport for a lecture on parachutes.

Corporal Kraner made parachutes his life work and career, fate decreeing that the pursuit of his endeavors to render safety to others should be the cause of his untimely demise. He was a conscientious worker, a man of responsibility and with a rare sense of humor. He will be missed by the members of this detachment and by all who knew him in civil life. The sympathies of all are extended to his widow.

- Corp. R.S. Lowe.

On the morning of January 4, 1938, while flying in formation in an A-17 Attack airplane, Second Lieut. Charles A. Clancy, Air Reserve, who was accompanied by Private Victor L. Jost as passenger, struck a power line near Wild, Calif., resulting in the crash of the plane and the death of both men. According to the telegraphic report on the accident the weather was excellent and there was no failure of material or equipment.

Lieut. Clancy was born at Oakland, Calif., August 9, 1912. After graduating from Sequoia Union High School at Redwood City, Calif., in 1930, and from Menlo Junior College, Menlo Park, Calif., in 1932, he completed two years of study at Stanford University for an A.B. degree.

Appointed a flying cadet in the Army Air Corps, he graduated from the Primary Flying School at Randolph Field, Texas, February 25, 1937, and from the Advanced Flying School, Kelly Field, Texas, June 9, 1937, specializing in Attack Aviation. He was appointed a second lieutenant in the Air Reserve, June 30, 1937, rated an "Airplane Pilot" on the same date, and assigned to extended active duty with the 34th Attack Squadron at March Field, Calif., with which organization he served up to the time of his death.

Private Victor L. Jost was born April 10, 1909, at Philadelphia, Pa. He enlisted in the Army August 1, 1930, and was assigned to Company G, 31st Infantry, at Manila, P.I.

Transferred to the Air Corps, June 16, 1931, he was assigned to the 66th Service Squadron. He joined the 31st Bombardment Squadron at March Field, Calif., August 14, 1933, and transferred to the 23th Bombardment Squadron on June 23, 1934. Honorably discharged from the service on June 12, 1936, he reenlisted on December 10, 1936, at March Field, Calif., and was assigned to the 34th Attack Squadron, the last organization with which he served.

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Engaged in a night navigation flight from San Antonio to Dallas, Texas, in an A-17 Attack plane, 2nd Lieut. Frank K. Thompson, Air Reserve, pilot, accompanied by Corporal Walter T. Mathews, of the 90th Attack Squadron, crashed at Grandview, Texas, at 6:15 p.m., January 10, 1938. At this writing the cause of the accident has not been determined. It appears that no attempt was made to use the parachute.

Lieut. Thompson was born at Columbus, Ohio, September 26, 1911. After graduating from the Western Reserve Academy, he graduated in 1936 from the Ohio State University with an A.B. degree. Being a member of the ROTC Unit at that university, he was commissioned a second lieutenant in the Field Artillery Reserve. Following his appointment as a flying cadet in the Air Corps and the completion of one year's flying training at the Air Corps Training Center, June 9, 1937, where he specialized in Attack Aviation, he was appointed a second lieutenant in the Air Reserve (vacating his Reserve commission in the Field Artillery), was rated an "Airplane Pilot," and was assigned to extended active duty at Barksdale Field, Shreveport, La.

Corporal Mathews was born at Waverly, Tenn., August 24, 1906. Following his enlistment in the Army, he served for three years from May, 1925, with the 17th Field Artillery. He then enlisted for the Air Corps on December 5, 1929, and was assigned to the 66th Service Squadron at Nichols Field, P.I. On December 12, 1932, he joined the 90th Attack Squadron at Fort Crockett, Galveston, Texas, and served therewith until November 16, 1934, when he joined

(Continued on Page 15).

CONTRACTS FOR AIRCRAFT ENGINES AND PARTS

Announcement was made, under date of January 4, 1938, by the Hon. Louis Johnson, Assistant Secretary of War, of the approval of a contract in the amount of $318,521.67 let to the United Aircraft Corporation (Pratt and Whitney Division) of East Hartford, Conn., covering the purchase of spare parts for 315 Model R-1830-13 engines. These spare parts are procured for the engines now serving as power plants in P-26A airplanes.

Approval was also announced of a contract with the same company for the procurement of 142 Model R-1340-47 engines and spare parts for installation in BC-1 airplanes now being constructed under a previous contract at the plant of the North American Aviation Corporation, Inglewood, Calif. The total expenditure for these 142 engines, including spare parts, is $866,800.59.

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NATIONAL GUARD AVIATION

In his annual report to the Secretary of War for the fiscal year ending June 30, 1937, the Chief of the National Guard Bureau, Major General Albert H. Blanding, states as follows with respect to aviation in the National Guard:

"During the fiscal year 1937 our air units flew in excess of 40,000 hours. Air missions in cooperation with other branches of the National Guard have increased to almost double of that of the previous year. Training of nonpilot observers is continuing satisfactorily, and it is expected that each unit will have attained a minimum strength of eight observers by the end of the present calendar year. In a number of units, however, our pilot strength has fallen to a number below that which is considered a minimum maintenance requirement. Means of pilot procurement are being studied in the Bureau, and every effort is being made to assist unit commanders in attracting trained pilots to their squadrons.

"The National Guard Bureau has procured by agreement with the Chief of the Air Corps and the Commanding General, General Headquarters Air Force, the use of aerial gunnery ranges for aerial firing. The availability of these ranges will satisfy a serious deficiency in this training in the National Guard.

"Our accident rate of the fiscal year 1937 was 0.402 per thousand hours of flying compared to the rate of 0.874 per thousand hours for 1936. This reflects a commendable improvement in the tactical and administrative control exercises by unit commanders."

Touching on the subject of equipment, the Chief of the National Guard Bureau states:

"The contract for Douglas observation airplanes was completed April 3, 1937.

"Contracts were let in February, 1937, for 45 North American three-place observation airplanes. The delivery of these airplanes is scheduled to start in the spring of 1938.

"Appropriations for 1938 air corps equipment will enable the Bureau to continue the reequipment of the air units in accordance with established policy.

"The procurement of necessary airplane accessories has progressed satisfactorily."

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INSTRUMENT FLYING TRAINING AT SELFRIDGE

Pilots of the First Pursuit Group at Selfridge Field, Mt. Clemens, Mich., are now in a position to practice instrument (blind) flying in new aircraft especially fitted for that purpose. Two North American BT-9B aircraft, completely fitted with artificial horizons, gyroscopic compasses and the latest radio aids, were recently ferried from the factory at Santa Monica, Calif., to Selfridge Field by Major Edwin J. House, commanding the Group, and Major Willis R. Taylor, commanding the 27th Pursuit Squadron.

The single-seater fighters with which the Group is equipped for tactical purposes are unsuitable for training "on instruments" which is normally conducted by placing a light-proof hood over the pilot's cockpit, which forces the pilot to fly solely by reading instruments. In the rear cockpit another pilot sits at dual controls to watch for possible dangerous errors and keep a weather eye peeled for other airplanes practicing in the vicinity.

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Early Days of Aviation
(Continued from Page 9

ment, following which he was assigned to Mather Field, Calif., for duty. He was retired from the service in 1923, and later affiliated himself with the T.W.A.

Major Smith holds the Aero Club of America Pilot Brevet No. 354, which was issued to him November 17, 1915. He also holds Department of Commerce Pilot License No. 573 with Scheduled Transport rating. At the end of the year 1937, his total logged pilot time was 6,527 hours and 47 minutes.

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OBITUARIES (Continued from Page 14).

the 74th Pursuit Squadron at Albrook Field, Panama Canal Zone. On January 8, 1937, he rejoined the 90th Attack Squadron, with station at Barksdale Field, La.

The Air Corps sends its deepest sympathies to the bereaved families and friends of these men who died in the service.

V-7602, A.C.

CHANGES IN A.C. NONCOMMISSIONED PERSONNEL

Losses

Master Sergeant William H. Folz, Mitchel Field, New York, died in the hospital at Fort Jay, New York, on December 27, 1937.

Technical Sergeant Benjamin F. Runyan, March Field, Calif., died at the Letterman General Hospital, San Francisco, Calif., on January 7, 1938.

Master Sergeant William J. Riley, of March Field, Calif., was appointed a Warrant Officer in the U.S. Army on January 1, 1938. He was assigned to duty at March Field.

Promotions
To Master Sergeant

First Sergeant John P. Grimme, Barksdale Field, La., effective December 28, 1937, to fill a vacancy at Mitchel Field.

Technical Sergeant William F. Feiertag, Barksdale Field, La., effective January 5, 1938, to fill a vacancy at March Field.

To Technical Sergeant

Staff Sergeant Joseph H. Pust, Fort Leavenworth, Kansas, effective January 5, 1938, to fill a vacancy at Barksdale Field, La.

Staff Sergeant Shockley D. Mullinix, Barksdale Field, La., effective January 11, 1938, to fill a vacancy at March Field, Calif.

The following-named Staff Sergeants, who recently qualified in examinations for the Weather Service, were appointed Technical Sergeants, Air Corps (Weather Service) on December 29, 1937:

William F. Bernheisel, Patterson Field, Ohio.

Leon B. Burke, Aberdeen Proving Ground, Maryland.

Harry J. Cuskey, Middletown Air Depot, Pennsylvania.

Myron E. Howe, Patterson Field, Ohio.

Martin Sebode, Langley Field, Va.

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AVIATION ACTIVITIES IN ALABAMA

The WPA has released a new project for Maxwell Field, Ala., which will cover the installation of sewer lines alongside the two new paved runways, now under construction. The project is for $38,360., with WPA furnishing $21,360 and Maxwell Field, $18,000.

The base is now being laid for the new 3600-ft. asphaltic runway, running northeast-southwest, at the Birmingham Municipal Airport. Two requisitions have been released for asphaltic concrete.

The 106th Observation Squadron, Alabama National Guard, has moved from Roberts Field to its new home on the north side of the Birmingham Municipal Airport. The new home was dedicated as the Sumpter Smith Hangars, in honor of Lieut. Colonel Sumpter Smith, one of the organizers of the Squadron, a former commanding officer and now Air Officer for the 31st Division and Principal Aeronautical Engineer of the Works Progress Administration in Washington.

With the removal of the 106th Observation Squadron, Roberts Field will be maintained as an emergency field. One section of the hangar will also be left for emergency use.

The City Engineering Department has completed all necessary engineering details for the preparation of plans for paved runways on the Montgomery Municipal Field.

The Alabama Aviation Commission is making arrangements for a Southeastern Aviation Planning Conference. The conference will probably be held in Montgomery during the week of April 11th. Nine States will be invited to participate, these being Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee. Letters announcing the conference have been sent to leading aviation officials throughout the country.

All of the Alabama air field work is being done by the Alabama Works Progress Administration.

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PROMOTION IN ENLISTED RANKS ON INCREASE

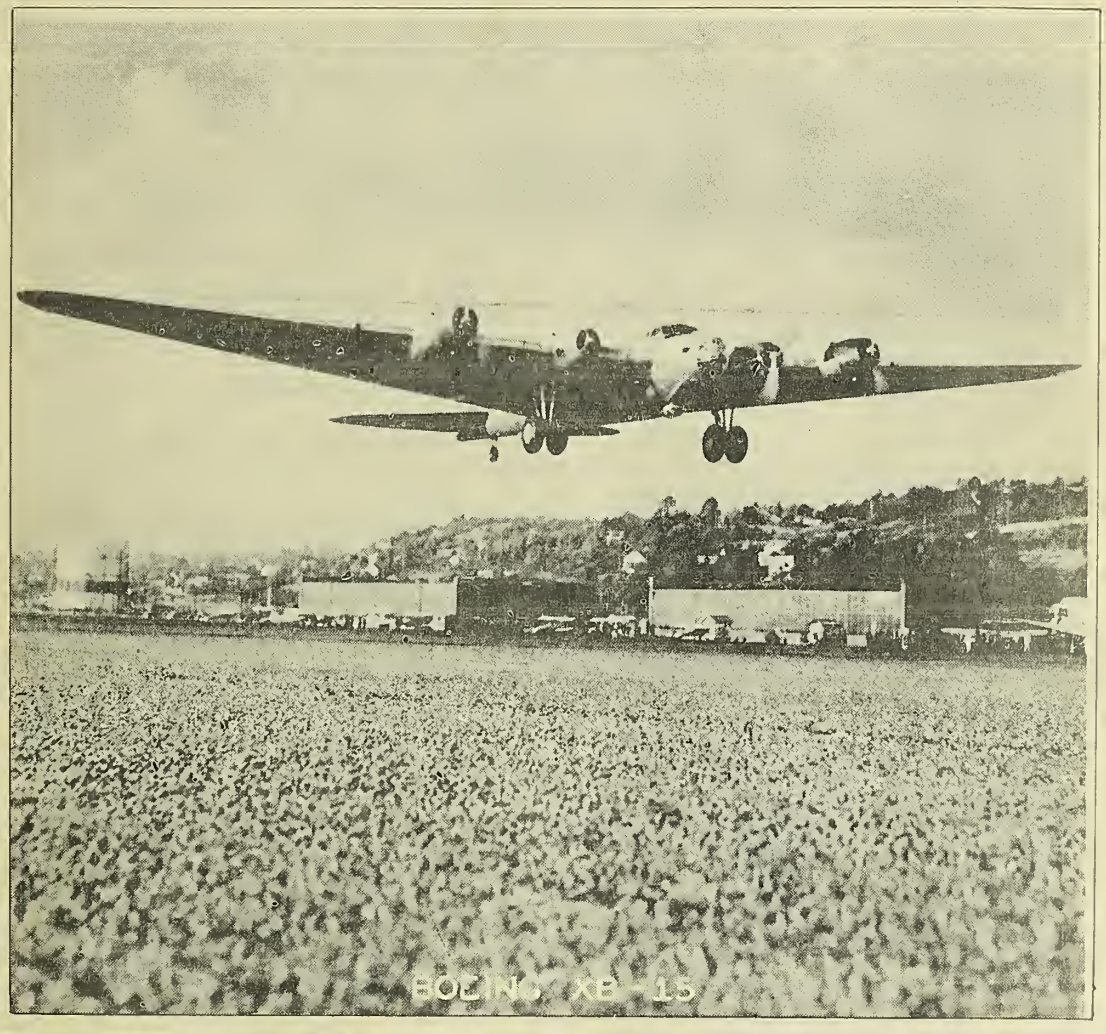
The promotion situation in the enlisted ranks of the Air Corps during the past year took a gratifying upward trend. Ten Master Sergeants of the Air Corps were appointed Warrant Officers in the U.S. Army, all of whom were assigned to the Air Corps. These appointments made it possible to advance to the grade of Master Sergeant a similar number of qualified noncommissioned officers of the second grade.

In all a total of 33 Technical Sergeants and First Sergeants of the Air Corps were appointed Master Sergeants in the Air Corps during the calendar year 1937, and sixty-five Staff Sergeants were advanced to the grade of Technical Sergeant.

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A night photograph of the Capitol in Washington, by Underwood & Wunderwood, has been converted into an attractive cover for the News Letter by our friend, Bob Fitzgerald, of the Materiel Division, Wright Field. Bob has proved so adept with the pen that he was "fired" from the Statistical Unit in the Aeronautical Museum and shifted to the Movie Laboratory to do animation work. Our thanks go to him and to Underwood & Underwood, who kindly accorded us permission to use their photograph.

AIR CORPS NEWS LETTER



ISSUED BY
THE OFFICE OF THE CHIEF OF THE AIR CORPS
WAR DEPARTMENT
WASHINGTON

VOL. XXI FEBRUARY 1, 1938 NO. 3

VOL. XXI AIR CORPS NEWS LETTER NO. 3.

Information Division, Air Corps — February 1, 1938 — Munitions Building, Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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MATERIEL DIVISION ACTIVITIES FOR THE YEAR 1937

By Brigadier General A.W. Robins,
Chief of the Materiel Division

The calendar year 1937 was marked by important engineering advances in all aeronautical fields of technical endeavor. New airplanes, both commercial and military, average twice the size of their immediate predecessors in terms of gross weight, feature improved performance and are technically more sound, safe, and efficient. Due to continued close cooperation and mutual understanding between the Materiel Division and the GHQ Air Force, airplanes under current procurement are better tools for the tactical groups to work with, perform more ably their prescribed tactical missions, and are more formidable military weapons. Airplanes delivered during the year numbered 410. They incorporated the most modern practical improvements in the fields of aerodynamics, structures, metallurgy, power plants, propellers, radio, armament, equipment and related accessories.

Only the outstanding developments are briefly described in the following paragraphs.

XC-35 Supercharged Cabin Airplane.- Commercial and military aviation were intensely interested in the construction and testing of the first successful pressure cabin airplane in the world, built by Lockheed. This airtight, sealed, and supercharged cabin has operated at altitudes in excess of 30,000 feet with an internal cabin pressure equivalent to 10,000 feet. Oxygen tubes and heavy winter clothing are no longer essential to high altitude flight.

XFM Multi-Place Fighter.- The Bell Aircraft Company delivered in September a twin-engined high performance Pursuit fighter. Equipped with pusher propellers and gunners' stations forward in the two outboard nacelles, the airplane seems to have tremendous fire power fore and aft, and may open up new fields in tactical defensive employment.

XB-15 Airplane.- An airplane believed to be the largest and most formidable bomber in the world was delivered by the Boeing Aircraft Company in December. Many of its design features and structural details are being used in Boeing 4-engined commercial seaplanes and landplanes now on order by Pan American and T.W.A.

Aircraft Developments

Nose-Wheel Landing Gear. Continued testing of the nose wheel and tricycle landing gear installed on the Douglas Amphibian OA-4A by pilots at N.A.C.A., Langley Field, Bolling Field, and Wright Field has produced most favorable comment.

Control Tab Investigation.- Qualitative investigation has been undertaken of control tabs for rudders, elevators, and ailerons, giving information on sizes, chords, spans, and angles of tabs, with respect to the forces and moments obtained. This information is useful to the designer for determining the correct area and shape of tabs in order not to exceed certain stick forces for high performance airplanes.

Pitot-Static Heads.- Extensive investigation was conducted on air-speed pitot-static heads. It is required that these heads not only give correct indication of airplane speeds, but that the static pressure obtained is within the very narrow tolerance necessary for use in blind landings.

Stability Studies.- A correlation of stability derivations for pitching, yawing, and rolling moments was determined on a tailless airplane model which displayed very good stability characteristics in free gliders when tested as a model glider. It is planned to compare these stability characteristics with those of modern airplanes.

Take-Off and Landing Tests.- Approximately fifty take-off and landing tests were conducted and analyzed. The tests were made, both for determining whether the contract airplanes met the guaranteed performance and as a study to improve methods for take-off and landing calculations.

Wing Radiator Study.- Tests and programs for testing were sponsored for investigation of liquid engine cooling by radiators placed within the wings.

Wing Engine Study.- Tests and programs were originated for investigating the efficiency of tractor and pusher airplanes with engines within the wings.

Wind Tunnel Models.- Positive tests on numerous wind tunnel models were conduct-

ed in order to establish specification requirements for various new types of military aircraft; also to determine performance characteristics of airplanes submitted to the Division in competitions or on contracts.

Propellers.- The Division has taken the initiative as sponsor in the development of counter-rotating propellers (two propellers close together, rotating in opposite directions on concentric shafts). One installation using non-controllable counter-rotating propellers is now undergoing tests and two types of controllable propellers for such application are in course of design and construction. In a similar manner the Division has developed a thrust meter to be built into engines, copper-brazed hollow steel propeller blades, hollow steel blades with supporting internal ribs, and plastic-impregnated wood blades for large diameter controllable propellers. The engine-propeller thrust meter will permit the determination of variation in propeller efficiency as affected by tip speeds and variations in propeller designs. In addition, the full-scale drag coefficients of airplanes may be accurately determined from gliding tests at zero propeller thrust. Extensive flight tests with full feathering propellers on bi-motored airplanes have proved the worth of this type of propeller in permitting the positive stoppage of the engine and propeller in case of an emergency. In addition, the full feathering propeller permits an increase in all phases of airplane performance, stability, and ease in handling over the wind milling or braked condition.

Wings.- A single shear web, stainless steel, outer wing panel in conjunction with the Fleetwings, Incorporated, of Bristol, Penna., has been developed. A number of stainless steel spot-welded wings of the two-shear web type for the OA-4A airplane are under construction. To date two of these wings have been delivered and are now undergoing service tests at Langley Field. Two wing panels built of aluminum alloy with spot-welded intermediate stringers for the Northrop A-17 airplane will be flight tested to determine the value of spot welding when subjected to vibration.

Power Plants

The tremendous expansion of aircraft engine power which has occurred during the past decade could not possibly have been foreseen. When the dynamometers were originally designed, a 500 hp. engine was the aim of engine experts. The dynamometer laboratory was designed for double that capacity as a leeway for expansion. During 1937, however, the "hump" of the 1000-hp. engine was passed. This fact necessitated new construction in the power plant laboratory to provide facilities for testing the higher powered engines already making their appearance.

Current engines are of the 1000-h.p. type. Instead of doubling this amount for further expansion, it has been tripled. New dynamometers are capable of absorbing approximately 3,000 h.p. This has been made possible by the installation of new water brakes.

Increase of capacity for power absorption, however, is but part of the story. Related accessories likewise were affected. Necessity for soundproofing was vital, as the noise produced by a 1,000-hp. engine undergoing test on a block is nerve-shattering to those working within close range.

With increase of power comes increase of speed and, in order to simulate air flow over cylinders of air cooled engines, capacity and efficiency of blower fans had to be more than doubled. Necessary construction relative to these changes is fast nearing completion.

Liquid-cooled engine development has culminated in the Allison V-1710 passing the type test at 1,000 h.p. This engine has been installed in the P-37 and the XFM-1 airplanes and indicates definite promise of success. The Wright R-2600 air-cooled engine has recently passed a creditable type test at 1500 take-off horsepower, and the Pratt & Whitney 1830 and 2180 series have also been progressing in a satisfactory manner.

In line with the trend toward simplification of controls, supercharger regulators and automatic mixture controls have been under development. An automatic tank selector is the most recent object for study under this category.

Materials

Transparent Materials. The use of canopies has stimulated a search for material with the transparency of glass, but with less fragility and weight. The celluloid windows in the cargo airplanes soon became opaque. The cellulose acetate turrets on the bombers were an improvement but far from satisfactory. A new resinoid, methyl methacrylate, is definitely superior and will be standard equipment on many of the new types.

Testing Machine.- Indicative of the trend in design, a 600,000-pound testing machine has been installed in the Material Branch laboratory.

New Chrome-Nickel-Molybdenum Alloy.- With increase in power, engines operate at higher temperatures and there is an insistent demand for materials which will meet these conditions successfully. The silchrome valve steel used a few years ago had a tensile strength of 12,000 p.s.i. at 1600° F. The present valve steel is good for 32,000 p.s.i., and in the past year a chrome-nickel-molybdenum alloy has been developed which has a strength 75 percent greater.

Self-Sealing Tubes.- Tires and tubes which will seal themselves after being punctured by bullets are under development.

Armament

Bomb Racks.- Experimental development and tests were completed on an improved type bomb rack assembly. This rack design provides for a wider selectivity in the release of bombs than the standard equipment, and includes an illuminated control panel on which is illustrated, by a series of electric lights, the size and location of bombs with which the rack is loaded for automatically spacing the location of impact when bombs are released in train. Two of these rack assemblies, which are suitable for installation in B-18 type airplanes, are being procured for service test.

Interval Control.- For the purpose of automatically controlling the time element between successive bombs released in train, thereby producing the desired spacing of bombs on the ground, a mechanism has been successfully developed that can be installed within the electrical control circuit of existing attack and bombardment type airplanes. Sufficient quantities of this unit to equip all existing attack and bombardment airplanes are now under procurement.

Flexible Gun Installations.- The development of turrets in which the gun and gunner are enclosed and which are arranged to produce the greatest possible field of fire have greatly improved operation conditions of flexibly mounted guns. This type of mounting is now required in the design of all bombardment airplanes where the efficiency of the gunner for defense purposes is of prime importance.

Automatic Gun Charging Mechanism.- With a view to obtaining the maximum power of gun fire, especially in attack airplanes, which are normally equipped with four free firing small caliber machine guns, there has been successfully developed a device which automatically recharges the gun in case of malfunction, bringing it back into full operation without attention from the pilot. Quantities of this device have been procured for service test in attack airplanes and further development work is in progress with a view to simplifying installation requirements.

Flexible Gun Mounts.- Adapters equipped with recoil compensating devices for application to .30 and .50 flexibly mounted guns have been developed which substantially reduce forces transmitted to adjacent airplane structures and increase the efficiency of the gunner with reference to field of fire.

Navigation Equipment and Instruments

Automatic Landing System.- Because of the variety of items involved, equipment development is always of especial interest. This year the accomplishment of the first fully automatic airplane landing in history was an outstanding achievement. The equipment responsible for this accomplishment allows the pilot to fly the airplane by use of the radio beacon, or other navigational methods, to a point within twenty miles of the airdrome at any normal cross country altitude. If when within this range the pilot closes the master automatic landing switch, the airplane will be turned automatically and flown to a point in line with the runway; automatically it will lose altitude and from that point will be flown to the airdrome, a landing accomplished, and the airplane controlled to the end of the roll entirely by automatic means.

The achievement of automatic landing has been a more or less gradual development. For the past two years airplanes have been flown automatically from point to point by means of the automatic gyro pilot and automatic accessory control devices. The first automatic instrument landing, made in August, 1937, culminated in a series of fully automatic landings. As a safety factor in bad weather flying, it is anticipated that this system will prove of untold value. The development of such a system was in line with the policy of obtaining, as far as possible, automatic control of all airplane operations.

Sensitive Altimeter.- Emphasis on navigation equipment resulted in 1937 in the development of several other important items of equipment. A sensitive altimeter known as the Type C-8 is one of these. This new altimeter is identical with the Type C-7 now in use except for a zero-setting scale graduated in inches of mercuty pressure in addition to the zero-setting scale graduated in feet of altitude. The mercury pressure change was added to permit convenient reference by the pilot in both systems.

Gyro Magnetic Compass.- Experimental tests of the gyro magnetic compass resulted in a service test order of 10 of these instruments being placed. This compass is in effect a magnetic north-seeking directional gyro. This objective is obtained by mounting a small magnet on the gyro rotor housing in such a manner that two small air jets maintain the gyro card in alignment with the magnetic meridian. Since the magnet is maintained in substantially a horizontal plane by the gyro even during turns, the turning errors usually found in magnetic compasses are eliminated. The tendency toward oscillation is also eliminated by the dead beat gyro. This compass, in order to eliminate errors due to magnetic material, incorporates air bearings instead of the usual hardened steel type. This instrument promises to prove an important development in the near future.

Navigator's Drift Meter.- The Type B-3 navigator's drift meter is, it is believed, the most remarkable ever furnished the service. This type of drift meter has resulted from the application of a self-erecting gyroscope upon which the reticle is carried to the optical system. Stabilization of the reticle eliminates

the wandering of a ground object down the reticle lines and enables drift to be measured with uncanny accuracy and rapidity even at extreme altitudes. The Type B-3 instrument opens up a heretofore unexplored field in dead reckoning navigation.

Line of Position Computer.- With the B-3 drift meter, a line of position computer, Type A-4, takes its place as a unique and remarkable conception. This instrument solves the usual celestial navigation problem without the use of almanac, tables, or graphical devices. It is not only unique in that the almanac data are incorporated, but it is the first celestial triangle computer in which positively geared rotary motion entirely replaces semi or full circular arcs normally representing the celestial and terrestrial circles involved. A radical mechanical departure makes possible the above substitution. The incorporation of differential counter type synchronizers greatly reduces the operating torque. Thus both ease and rapidity of operation are accomplished. With this computer the customary sun-star problem can be solved with an accuracy of two minutes of arc in two minutes of time, without the use of almanac, tables, or graphical devices.

Electrical Equipment

Alternating Current System.- Principal among the developments in the electrical field during 1937 is an alternating current system, whose power is derived from separate gasoline engines installed in the fuselage. This system permits the removal of all accessories from the main engines, giving them more dependability and ease of maintenance. As a result of the experience gained in this installation, the Air Corps has adopted an alternating current source of 110 volts, 400 cycles, and 3 phase as a standard for future similar installations in airplanes over 25,000 pounds gross weight. This system was installed in the Boeing B-15 and Bell XFM-1 airplanes.

Lighting Systems.- A portable flood light has been standardized. The light is supported by a collapsible tripod and when packed in its carrying case for air transportation weighs only 130 pounds. This unit has proved quite efficient for lighting auxiliary fields during maneuvers.

An oscillating beacon has also been developed which has a spread of 360° and oscillates its beam vertically 40 times per minute, from the horizontal to 8° above the horizontal. This type of beacon is especially valuable under thick weather conditions. An automatic lamp changer and a better lens for greater light efficiency throughout the vertical sweep of the beam are recent improvements.

A change in instrument board illumination which gives each individual instrument its own light instead of indirect lighting of all instruments has been adopted. Individual lighting was found to be the best solution to the problem of illuminating desired instruments without incurring glare and reflections in the cockpit.

Photography.- Work is progressing in aerial photography on the speeding up of field methods of development, processing, and drying photo prints. Leading color photographic processes are being investigated both for making transparencies and color paper prints. An interesting color camera has been constructed. Work is favorably progressing on a wide-angle lens for topographic mapping, which when perfected and installed in a camera, may replace the multi-lens type of camera.

Miscellaneous Equipment.- Other miscellaneous items of equipment which have received special attention during the past year may be summed up as follows: A 7,000-foot cable tow target windlass which permits the towing of aerial targets at a sufficient distance to the rear of the towing airplane to eliminate the need for leading the airplane during anti-aircraft gunnery fire at high towing speeds; a pneumatic life raft container which provides for automatic release and inflation of the raft in an emergency water landing from land airplanes; a quick attachable parachute harness which obviates the need of removing stitching for different size adjustments and permits adjustment to be easily accomplished by the wearer; a light-weight portable wing jack for use with large airplanes which may be folded and transported by air; a portable hydraulic work stand for hangar use which has a height of 14 feet and may be raised either by power or by hand; a maintenance shelter consisting of a demountable tubular frame covered with water-proof canvas, which completely covers the engine and landing gear.

Physiological Research.- In the physiological research laboratory, extremely interesting studies have been completed. These deal with the influence of flight in various phases on personnel, including the effect of high positive, negative, and linear acceleration during acrobatics; the effect of repeated exposures to oxygen want; and proof that flight at high altitude may produce the "Bends" similar to that found in deep sea diving.

Radio

Among communication projects assigned to the Aircraft Radio Laboratory for development during the past year were an improved command set involving novel features, a new headset for cabin airplanes, an improved throat microphone, two new interphone systems, improvements in instrument landing systems.

Probably the most interesting equipment developed as a result of this program is the new command set, which consists of four main units; a control box for the pilot's compartment, a transmit-

ter, a receiver, and a transmitter dynamotor, all of which may be installed in a convenient location in the airplane and operated by remote control from the pilot's compartment. The transmitter operates on any one of four crystal-controlled frequencies placed anywhere in the band between 2500 and 8000 kilocycles, and change from one frequency to another can be made in a few seconds. Either CW or voice transmission is available. The receiver has complete tuning coverage over the three channels; 200-400 kc, 550-1500 kc, and 2500-8000 kc, as well as three crystal-controlled frequencies in the last channel. Provision is also made for reception on either of two shielded loops, one parallel to and one transverse to the front-rear center line of the airplane for the elimination of rain and snow static.

In the field of air navigation, 175 of the latest type radio compasses have been procured and delivered to using organizations. An order has recently been placed for 800 additional compasses of the same general type, but with some mechanical and electrical improvements.

Several minor improvements in the equipment used for instrument landing have been made, and study of various types of landing beams is in progress, the ultimate objective being the inclusion of one of them in the present landing system.

Field Service.

On June 15, 1937, the Hq. & Hq. Sq., 1st Transport Group, A.C., was consolidated with the Hq. & Hq. Sq., 10th Observation Group, A.C., and redesignated Hq. & Hq. Sq., 10th Transport Group, A.C., with station at Patterson Field, Ohio, but to function at Wright Field, Ohio, with the First, Second, Third, Fourth and Fifth Transport Squadrons and the First Service Squadron assigned thereto without change of status or station. The First Transport Squadron is stationed at Fairfield Air Depot, Ohio; the Second Transport Squadron at Middletown Air Depot, Pa.; the Third Transport Squadron at San Antonio Air Depot, Texas; the Fourth Transport Squadron at Rockwell Air Depot, California. The Fifth Transport Squadron and the First Service Squadron are inactive. Strength of Group on June 15, 1937: 24 officers and 239 enlisted men.

The Materiel Division has been issuing instructions for the operation of transports between Depots since November 15, 1936. During this time 132 round trips were made between the various Depots, traveling a distance of 413,090 miles and carrying 558,773 ton miles of freight, which is equivalent to carrying 558,773 tons a distance of one mile.

During the course of one year it is reasonable to assume that at least 1,600 tons of freight are moved between Depots and between Depots and Stations at a saving of approximately 30 per cent in packing, labor, and shipping costs.

MOSAIC MAPPING PROJECT

Photographic personnel of the Air Corps Training Center are undertaking a good-sized mosaic mapping project of the area around Fort Clark. The mosaic is desired by Headquarters, 1st Brigade, at Fort Clark, for the purpose of bringing their maneuver map up to date. The project was first submitted through 8th Corps Area Headquarters to Brooks Field, but due to a crowded schedule Brooks Field could not perform the mission before the first of July. Since the maps are needed for tactical inspection around the middle of April, special efforts are being made to get the job done by another organization.

Although the Photographic Detachment at Kelly Field is organized for the service of the School, the Commanding Officer of the Air Corps Advanced Flying School, Colonel Arnold N. Krogstad, wishing to ascertain what could be done in the way of a large scale project with the limited equipment on hand, decided to undertake the mission. Details and arrangements were left to the Photographic Officer, Lieut. Charles F. Densford.

The area to be covered is approcimately 950 square miles, divided into five sectors of approximately 200 square miles each. Flight maps were prepared by members of the Photographic Department of Headquarters Squadron. It is calculated that twelve rolls of film will be needed. Exactly this amount of film was found to be on hand in the Photographic Laboratory and Air Corps Supply. Emergency requisition was submitted for 12 rolls of film and the necessary paper and chemicals to complete the project. Materials requested on emergency requisition were then to be used to replace the materials taken from stock. The mission was assigned on January 6th, and plans were completed and the flight ready to go on January 8th. They planned to use five O-25 airplanes, flown by two Observation instructors, Lieuts. E.R. Todd and A.R. Walker, and three officers from "back of the line," Captain R.E. Holmes and Lieuts. Densford and Clark. Sergeants Klutz, Coy, Kjelland, and Corder, and Private Evans were selected to perform the photography.

Bad weather delayed the beginning of the work for ten days, but on the 18th it was good enough to start. In the meantime the students of the Observation Section had departed on their navigation flight, taking all but one of the O-25's and two of the pilots. There were still left at Kelly Field one O-25, one O-19 and two O-35's, one of which was out of commission. With the three airplanes available, Captain Holmes and Lieuts. Densford and Clark started the project, with Sergeants Coy, Kjelland and Corder handling the cameras. Approximately three-fifths of the work planned was accomplished on the 18th. However, two

(Continued on Page 6)

BOMBING BY THE 19TH BOMBARDMENT GROUP

Well along in its progressive training of highly efficient combat crews for the new B-18 type Bombardment airplanes with which it is equipped, the 19th Bombardment Group, GHQ Air Force, March Field, Calif., culminated, on December 21st, the second phase of intensive training devoted primarily to the airplane commander and his combat crew by blasting the "large silhouette" target almost off the Mohave Desert with large H.E. bombs. Under the direction of the Group Commander, Lieut. Colonel Harvey S. Burwell, the operations conducted by Major Grandison Gardner, Group Operations Officer, included all phases of handling high explosives, successfully calling for thorough knowledge of and practice in the moving, hoisting, loading, fuzing, carrying, and dropping from high altitude the largest type bombs.

The proof of the value of the program instituted by the Commanding General of the First Wing lay in the ease and dispatch with which operations with 600, 1100 and 2000-pound bombs were carried to a highly effective conclusion by the 30th and 32nd Squadrons of the 19th Bombardment Group.

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ACTIVITIES OF 88TH RECONNAISSANCE SQDN.

School days are here again for members of the 88th Reconnaissance Squadron at Hamilton Field, Calif. With new problems every day arising from the previously unheard of performance of the B-18 Bombardment airplanes, further training of everyone in the Squadron becomes imperative, from those with the most experience down to the newest arrival.

First Lieut. Ronald R. Walker left Hamilton Field by air on January 8th for Maxwell Field, Ala., where he was scheduled to pursue the two weeks' course in Naval tactics at the Air Corps Tactical School.

Two experienced airplane engine mechanics - Privates, 1st Class, Ernest G. Werner and Reed Werner - were placed on detached service for three months at the Rockwell Air Depot, Calif., where they will take a refresher course for airplane engine mechanics.

Nine officers of the Squadron are attending the Celestial Navigation School of the 7th Bombardment Group. They are Lieuts. Robert H. Kelly, Leslie O. Peterson, John B. Cary, Arthur V. Jones, Jack L. Randolph, George E. Pierce, Howard F. Bronson, Ted S. Faulkner and Alban B. Ogden.

Five men of the Squadron were detailed to attend the airplane engine school, conducted by Base Headquarters and 5th Air Base Squadron, starting January 16, 1938, viz: Privates Merrill B. Simonsen, Charles L. Raboin, James R. Rawlins, H.C. Clementson and William C. Olcott.

BUZZARD MAKES DEEP IMPRESSION ON AN A-17

Believe it or not, but this latest report from the 37th Attack Squadron seems to prove that considerable damage can be done by a bird, such as a buzzard or a sea gull, to a thin-skinned metal airplane in flight - in this case an A-17.

The incident occurred shortly after take-off on a routine local flight at Langley Field, Va. The pilot, Lieut. H.E. Watson, tried his best to avoid a flock of birds, but the lesser breed must have dodged the same way, and he hit one buzzard with the right horizontal stabilizer. After returning to the field, the pilot was amazed to find that the damage consisted of a large dent, six inches deep, in the leading edge of the right horizontal stabilizer, the impact being sufficient actually to break the skin.

Upon examining the damaged stabilizer, it would seem that the cause of the damage was a flying bag of hard cement instead of a scant four or five-pound bird. The internal damage to the horizontal stabilizer section is not now determinable, but the longerons and stabilizer assembly of the airplane were not damaged at all.

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Mosaic Mapping Project

(Continued from Page 5)

rolls of the exposed film were ruined by cam failure which left the shutter stuck open. Since the 18th, the weather has been so cloudy that it has prevented the continuation of the mission. Further progress on the project will be reported.

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20TH PURSUIT GROUP LOSES ITS P-26's

Led by Major Armin F. Herold, Commanding Officer of the 79th Pursuit Squadron, 14 pilots of the 20th Pursuit Group, GHQ Air Force, Barksdale Field, La., flew P-26A airplanes to the West Coast for delivery to the Rockwell Field Air Depot. The Barksdale Field Correspondent expresses regret over seeing these excellent little planes go, but finds some consolation in the rumors of new type of Pursuit ships to be delivered in the future to the 20th Pursuit Group.

One of the highlights of the return trip to Barksdale Field, via C-33, was the overnight stay in Tucson, Arizona. It seems that some members of the party were not equipped with the necessary lead-lined digestive tract to cope with the Mexican foods in which they indulged.

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Colonel Hugh J. Knerr, Air Corps, was relieved from further assignment and duty with the GHQ Air Force, Langley Field, Va., February 1, 1938, and assigned to the Headquarters of the 8th Corps Area at Fort Sam Houston, Texas.

V-7621, A.C.

Thus far a total of 121 students (100 candidates from civil life and 21 enlisted men of the Army) have qualified for appointment as Flying Cadets and comprise part of the class to begin the course of training at the Air Corps Primary Flying School at Randolph Field, Texas, on March 1, 1938. It is anticipated that additional applications for flying training from qualified candidates will be received during the month of February, and that the size of the March class will be in excess of 200 students.

Students undergoing flying training at the Air Corps Training Center pass through a four months' primary flying course and a four months' basic course at Randolph Field, followed by a four months' advanced course at the Air Corps Advanced Flying School at Kelly Field, Texas.

Upon the successful completion of flying training, a flying cadet is discharged from the service, rated an "Airplane Pilot" and given a commission as a second lieutenant in the Air Corps Reserve.

Within the limit of appropriations, graduates of the Air Corps Training Center, after being commissioned in the Air Corps Reserve, are ordered to extended active duty with Air Corps tactical squadrons, during the course of which they have the privileges, pay and allowances of a second lieutenant in the Air Corps, Regular Army, which includes fifty percent additional pay while on duty requiring participation in flights. Under existing law, such active duty may be for a period of not more than five years. Upon the termination of a period of active duty of not less than three continuous years, an Air Corps Reserve officer shall be paid a lump sum of $500, which sum shall be in addition to any pay and allowances which he may otherwise be entitled to receive. In accordance with the law governing promotion of officers in the Army, Air Corps Reserve officers, upon the completion of three years of active duty, are promoted to the rank of first lieutenant.

The sum of $500 paid an Air Corps Reserve officer upon the termination of three or five years of active duty, when he revents to inactive status, is in the nature of a bonus in order to tide him over financially for a period of time reasonably anticipated it will require him to obtain a permanent position in civil life, either in the field of commercial aviation or in some other occupation for which he may be fitted.

According to statistics, approximately 55% of the pilots employed by commercial airlines have either graduated from the Air Corps Training Center or from Army flying schools prior to the establishment of the Air Corps Training Center in Texas. The scheduled airline operators count very largely on graduates of the Air Corps Training Center, including those now on active duty and those who have completed their active duty tours, to fill vacancies in the piloting ranks of their organizations.

Just recently, one airline executive informed the Air Corps that he would take fifty co-pilots for his airline at once, if he could get them, and give them a salary of $200 per month at the start, with assured promotion and salary increases. He expressed a desire for men who graduated from the Air Corps Training Center and who completed active training with Air Corps squadrons.

At the present time there are more positions as pilots on commercial airlines in sight than there are qualified pilots to fill them. Commercial companies usually require applicants for positions as co-pilots on their airlines to have a total of at least one thousand hours piloting time to their credit. Air Corps Reserve officers completing three years of active duty with tactical squadrons usually have this minimum amount of pilot flying hours to their credit and are thus able to meet the requirements of airline operators in this regard.

Not only are flying cadets of the Air Corps given free instruction and furnished food, shelter and clothing while undergoing flying training, but they are paid $75 per month while at the Training Center undergoing instruction. Men between the ages of 20 and 26, who can pass the required physical examination and possess at least two years' college education, or who can pass an examination which is the equivalent thereof, are admitted to the Air Corps Training Center as Flying Cadets.

The candidates who have thus far qualified for appointment as flying cadets are being directed to enlist as such at the military activity nearest them and to report to the Air Corps Primary Flying School at Randolph Field, Texas, on March 1, 1938, for assignment to the March Class.

For the first time in the history of the operation of the Air Corps flying schools, the State of West Virginia has the largest delegation of native sons in a class beginning flying training. This distinction heretofore was usually a nip and tuck affair between the States of California and Texas, and West Virginia's representation in various entering classes did not exceed two or three students. With 21 West Virginians qualifying for the March, 1938, class, and with bright prospects of this number being increased before the class actually begins work, West Virginia's nearest competitor in State representation is Texas with 15 students, followed by California with 11 students.

This sudden rise of West Virginia into prominence at the Air Corps Training Center may be attributed to the keen interest in the Army Air Corps of the Assistant Secretary of War, Hon. Louis Johnson, himself a native of that State. Alive to the great need of pilots in the Air Corps, it was through Mr. Johnson's suggestion that publicity regarding the great advantage to air-minded young men of the course of flying training at the Air Corps Training Center was spread throughout that State. As a result of this publicity, seventy young men presented themselves for examination for a Flying Cadet appointment, and of this number forty passed the physical examination. It is anticipated that about ten more students will be added to the West Virginia delegation at the Primary Flying School at Randolph Field before the new class begins work.

The candidates who have thus far qualified

for a flying cadet appointment are enumerated, as follows:

Hornsby, Claude E., Jr.	Centerville, Ala.
Worthy, Lionel D.	Fyffe, Ala.
Jackson, George	Tucson, Ariz.
McNay, Kenneth	Camden, Ark.
Hall, Byron E.	Campbell, Calif.
Wilson, Harold F.	Los Angeles, Calif.
Ford, Ernest G.	Pacific Beach, Calif.
Oliver, Ralph L.	Palo Alto, Calif.
Gilmore, Jean D.	Redding, Calif.
Horme, Winfree A.	Santa Barbara, Calif.
Paul, Samuel C.	Santa Barbara, Calif.
Parker, Kingston E.	San Francisco, Calif.
DeMattei, John	Stockton, Calif.
Gutru, George H., Jr.	West Los Angeles, Calif.
Bergeson, Bernhardt T.	Denver, Colo.
Kelly, George V.	Denver, Colo.
Sanders, Herschel E.	Manchester, Conn.
Laverty, Robert A.	New London, Conn.
Von Sabo, Alader A.	Shelton, Conn.
deRussy, John H.	Washington, D.C.
Manson, Hugh B., Jr.	Jacksonville, Fla.
Braswell, Thomas E.	Atlanta, Ga.
McCullough, Hilliard B.	Atlanta, Ga.
Peoples, Thomas J.	Chatsworth, Ga.
Roberts, Albert J., Jr.	Champaign, Ill.
Potter, Phillip O.	Chicago, Ill.
Swanson, William H.	Chicago, Ill.
Wilmot, Woodrow B.	Dunlap, Ill.
Smith, J. Wallace	Fenton, Iowa
Cassell, Raymond W.	Baxter Springs, Kans.
Mueller, Robert B.	Wichita, Kans.
Stinson, William E.	Baton Rouge, La.
Benois, Royal Victor	Shreveport, La.
Stansbury, William G.	Shreveport, La.
Whatley, Frank A.	Slagle, La.
Bourgoin, Raoul J.	Dover-Foxcroft, Me.
Philbrick, Frederick E.	Brookline, Mass.
Draper, Harry E.	Hyannisport, Mass.
Reed, John DeL.	Ann Arbor, Mich.
Buethe, George M.	Northfield, Minn.
Bergdahl, Clyde	St. Paul, Minn.
Evans, John S.	St. Paul, Minn.
Randall, Heman W., Jr.	Helena, Mont.
Clark, Eugene L.	Omaha, Neb.
Schroeck, Franklin E.	Buffalo, N.Y.
Mallinson, Hiram R.	New York, N.Y.
Thiele, Harold E.	South Cairo, N.Y.
Heber, Malcolm M.	White Plains, N.Y.
O'Neill, Brian	Yonkers, N.Y.
Kamperman, Ralph, Jr.	Cleveland, Ohio
Opeil, Charles M.	Cleveland, Ohio
Carter, Roy M.	Britton, Okla.
Fritts, Jack B.	Norman, Okla.
Bartlett, Rex A.	Oklahoma City, Okla.
Johnson, James A.	Wagoner, Okla.
Carley, Alan E.	Medford, Ore.
McGaughey, Samuel K.	Roseburg, Ore.
Ireland, Loren E.	Salem, Ore.
McCulley, James G.	Anderson, S.C.
Roberts, Wagner H.	Hartsville, S.C.
Chiles, Clarence S.	Corryton, Tenn.
Ryan, James L., Jr.	Nashville, Tenn.
Trim, Kermit M.	Tiptonville, Tenn.
Gayle, Charles A.	Bellaire, Texas
Bond, Charlie R., Jr.	Dallas, Texas
Riddle, Kyle L.	Decatur, Texas
Bradshaw, Thomas Eugene, Jr.	Houston, Texas
Kellogg, Charles W.	McAllen , Texas
Bogan, Charles Wm.	McLean, Texas
Lane, William, Jr.	Marshall, Texas
Schriever, Gerhard J.	San Antonio, Texas
Coppage, Edwin S.	Shamrock, Texas
McChrystal, William A.	Salt Lake City, Utah
Barnes, Samuel G.	Lexington, Va.
Reed, Charles W.	Raymond, Wash.
Flowers, Noel Q.	Silverdale, Wash.
Roe, Theodore W.	Spokane, Wash.
Murrell, Carroll T.	Barrackville, W.Va.
Poling, Okey J.	Belington, W.Va.
Rhoades, Harold W.	Cedarville, W.Va.
Haller, Earl S., Jr.	Charleston, W.Va.
Moore, Kenneth C.	Clarksburg, W.Va.
Briel, Phillip G.	Fairmont, W.Va.
Marshall, Charles S.	Grafton, W.Va.
Marcum, Jack M.	Hamlin, W.Va.
Cook, Ralph	Hewitt, W.Va.
Moore, Archibald W.	Huntington, W.Va.
Smith, Thomas C.	Marlinton, W.Va.
Coulter, Emil	Maysel, W.Va.
McCullough, Kenneth K.	Mole Hill, W.Va.
Lippucci, Fred H.	Morgantown, W.Va.
Guyton, John A.	Newell, W.Va.
Hindson, William S.	Oak Hill, W.Va.
Bond, Richard D.	Rock Cave, W.Va.
Willman, John W.	Rawlesburg, W.Va.
McQuaid, Lynn, Jr.	Salem, W.Va.
Gillum, Virgil M.	Shinnston, W.Va.
Gregg, Guy K.	Weston, W.Va.
Buckles, James R.	Milwaukee, Wis.

Roy, Eugene L. — Albrook Field, Panama C.Z.

Note: All candidates listed above are from civil life.

Flying Cadets - Enlisted Men

Hoehne, George G. — San Francisco, Calif.
Base Hqrs. and 6th Air Base Squadron, Hamilton Field, Calif.

Pinter, Joseph A. — Georgetown, Ill.
Medical Dept., Sta. Hospital, Selfridge Field.

Clark, Joseph W. — Golconda, Ill.
52nd School Sqdn., Randolph Field, Texas

Rakestraw, William C. — Peoria, Ill.
Hqrs. & Hqrs. Sqdn. Selfridge Field, Mich.

Lewis, Dwight F. — Corning, Iowa
52nd School Sqdn., Randolph Field, Texas

Engstrom, Walter F. — Detroit, Mich.
Base Hq. & 3d Air Base Sq. Selfridge Field

McClure, William A. — Royal Oak, Mich.
17th Pursuit Sqdn., Selfridge Field, Mich.

Bruce, James R. — Saginaw, Mich.
Base Hq. & 3d Air Base Sq. Selfridge Field

Armstrong, George H. — Polytechnic, Mont.
Base Hq. & 5th Air Base Sqd. Hamilton Field

Harman, Harold M. — Gallup, N. M.
Base Hq. & 9th Air Base Sq. Moffett Field

Keiser, Donald McKay — McComb, Ohio
Hq. & Hq. Sqdn., Randolph Field, Texas

Stiles, Joseph E. — Red Lion, Pa.
Base Hq. & 1st Air Base Sq., Langley Field, Va.

Cickavage, Peter — Frackville, Pa.
2d Staff Squadron, Bolling Field, D.C.

Iacone, Frank L. — Providence, R.I.
29th Bomb. Squadron, Nichols Field, P.I.

Sneed, Charles R. — Evant, Texas

Jenkins, Harry A. — Montalba, Texas
11th Air Base Sqdn., Randolph Field, Tex.

Howell, James P. — Lubbock, Texas
Battery A, 82d Field Art., Ft. Sam Houston.

Enlisted Men (Continued)

Howell, Woodrow G. Lubbock, Texas
Battery A, 82d Field Art. Ft. Sam Houston.
Willsie, Harold Fort D.A. Russell, Texas
Hqrs. & Hqrs. Battery, 77th Field Artillery, Fort D.A. Russell, Texas.
Hardy, Otha B., Jr. Houston, Texas
53d School Squadron, Randolph Field, Texas
Veatch, Bernard W. Conde, S.D.
82d Obs. Sqdn., Moffett Field, Calif.

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MR. IDE LECTURES ON FOREIGN AIRCRAFT DEVELOPMENT

Mr. J.J. Ide, Technical Assistant in Europe for the National Advisory Committee for Aeronautics, with office at Paris, France, arrived at Wright Field, Dayton, Ohio, on January 11th.

Mr. Ide's visit has for many years been an annual event, and his lecture to the officers and engineers of the Materiel Division on foreign aircraft development is always eagerly looked forward to. With the accelerated foreign aircraft procurement programs in operation at the present time, the lecture this year was of particular interest. Conference with officers followed the lecture. Brigadier General A.W. Robins, Chief of the Materiel Division, introduced Mr. Ide, stating that this was his fourteenth visit to the Division.

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BROADCASTING FROM A HIGH ALTITUDE

A successful broadcast from the Lockheed XC-35 substratosphere airplane was accomplished on January 22nd by Major Carl F. Greene and Lieut. E.H. Beebe, the plane being piloted by Lieut. L.F. Harman and the broadcast being made while flying at an altitude of 21,000 feet over Chicago, Ill.

The windows of the plane were frosted with ice, and the outside thermometer indicated a temperature of 15 degrees below zero. Inside the supercharged cabin, however, the passengers rode in comfort. Because of the engine noise, the broadcasters spoke with their mouths almost against the microphone, so that no one in the plane heard what the other was saying, except Lieut. Harman. Holding the big plane steady in somewhat rough air conditions, he smilingly heard everything on his radio receiver, which was tuned in on a Chicago broadcasting station. The broadcast was effected over the National Broadcasting Company network.

Announcement of the opening of the International Air Show, held at Chicago January 28th to February 6th, was made during the broadcast.

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Circulars were issued to aircraft manufacturers by the Materiel Division, Wright Field, on January 18th, inviting bids on 2-engine attack Bombers. This is a new Air Corps type of airplane to be constructed especially for attack and light bombing purposes. The bids were to be based on quantities of from one to five hundred in increments of ten. The opening of the bids is scheduled for March 17, 1939.

LECTURES BY WRIGHT FIELD PERSONNEL

Materiel Division officers and engineers presented papers at annual meetings of both the Society of Automotive Engineers and the Institute of Aeronautical Sciences during January.

Captain George V. Holloman's paper, presented at the Society of Automotive Engineers' meeting in Detroit on January 10th, was entitled "Automatically Controlled Blind Landings."

The following papers were read at the meeting in New York City on January 27th of the Institute of Aeronautical Sciences:

"Full Feathering Propellers," by Lieut. H.M. McCoy, of the Propeller Unit.

"Supercharging a Pressure Cabin Airplane," by Captain A.H. Johnson, of the Engineering Procurement Branch.

"Physiologic Considerations Governing High Altitude Flight," by Dr. J.W. Heim, of the Physiological Research Laboratory.

Captain H.A. Armstrong, Director of the Physiological Research Laboratory, Materiel Division, also read a paper.

Major Carl F. Greene was chairman of the session featuring the discussion of aircraft under high altitude conditions.

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NIGHT CLASSES IN ADVANCED AERODYNAMICS

"Night" classes in advanced aerodynamics, with special reference to the fluid in motion known as air, have been conducted through the winter months in the Air Corps Engineering School classrooms at Wright Field, Dayton, O. The seventeen students in attendance are from the various engineering departments of the Materiel Division. Classes started in October and will last through May.

Prerequisites for the course are advanced mathematics, including differential equations. Classes are held one afternoon each week, after working hours, from 3:45 to 5:45 p.m.

Ezra Kotcher, Associate Professor of the Air Corps Engineering School, is the Instructor.

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GIANT BOMBER INSPECTED AT MATERIEL DIVISION

After its arrival at the Materiel Division, Wright Field, Ohio, about the middle of December, the giant Boeing B-15 was hurried to the assembly hangar and was immediately put through the complicated process known as "engineering inspection."

In order to expedite this work, during which as many as 18 engineers were sometimes busy simultaneously in the fuselage while various others were perched upon landders examining exterior parts, signs were placed about enjoining all others to keep away. "It is thought," says the News Letter Correspondent, "that this preliminary work, which forms so vital a part in the collaboration of data on a new airplane, will be completed by the end of January."

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Major General O. Westover, Chief of the Air Corps, arrived at the Materiel Division on the afternoon of January 11th, and remained for several days.

NAVIGATION TRAINING FLIGHT OF CLASS 38-A

Students of the Observation Section of the Air Corps Advanced Flying School, Kelly Field, Texas, departed on schedule for their extended navigation training flight, under the supervision of Captain R.E. Randall, senior instructor of Observation, 1st Lieut. E.R. Todd and 2nd Lieut. A.R. Walker.

The flight of 18 students left Kelly Field on January 17th, planning to fly to El Paso, Texas, via Midland; then back through Midland to Hensley Field, Dallas, Texas, to remain over one day for maintenance. From Hensley Field they planned to fly to Houston, Corpus Christi and back to Kelly Field.

The following students made the flight:

Captain C.M. Travassos (Brazilian Army)
2nd Lieuts. J.H. Gray and J.R. Gunn

Flying Cadets

D.L. Anderson	D.J. French	R.D. Dick
H.J. Konopacki	J.W. Haskett	N.H. Ranck
W.K. Richardson	P.W. Tibbets	J.A. Tobler
M.E. Wanamaker	H.M. Keeffe	E.C. Voltz
R.A. Kummrow	R.N. Maupin	M.S. Zipp

The three mechanics accompanying the flight were Staff Sergeant S.W. Doggs, Privates R.C. Hajovsky and H.L. Kirkbride. The flight was composed of 21 airplanes, nine of which were O-25's and twelve BT-9's.

The first echelon of the Pursuit Section, led by Major John V. Hart, 1st Lieut. N.P. Jackson and 2nd Lieut. R.W. Osborn, left Kelly Field on January 19th, planning to fly from Kelly to Hensley, via Corpus Christi and Houston the first day, and on the following day from Hensley Field to El Paso, via Midland, remaining over one day at El Paso for maintenance, and from there returning to Kelly Field via Midland. The flight is composed of 17 BT-8 airplanes. The following students made the flight:

2nd Lieut. H.R. Melton, Jr.

Flying Cadets

R.A. Ames	Don Coupland
H.B. Armstrong, Jr.	N.A. Cowles
G.G. Atkinson	W.J. Feallock, II
E.H. Beverly	R.S. Garman
D.D. Brannon	G.B. Greene, Jr.
James Breathitt, III	H.M. Hays
W.C. Clark	

The three mechanics accompanying the flight were Staff Sergeant A.D. Bivins, Corporal R. Rose and Private S.E. Anderwald.

Weather permitting, the Attack Section was scheduled to depart on January 24th on their navigation training flight, led by Captain G.C. Jamison, assisted by 1st Lieut. C.H. Pottenger and 2nd Lieut. W.D. Griffith. The sixteen students listed below were to make the flight in 9 A-12's and 10 A-18's, viz:

2nd Lieuts. G.H. Austin and G.P. Culver.

Flying Cadets

J.C. Bailey	J.C. Bowen	R.G. Emmens
A.J. Heintz	J.C. Marcy	R.J. Mason
J.V. Edmundson	E.T. Pardee	R.D. Taylor
C.E. McPherson	A.D. Reedy	G.W. West
C.C. Sturges, Jr.	W.T. Rison	

Enlisted mechanics accompanying the flight: Corporal A.I. Murin, Privates H.C. West and E.A. Heintz.

Itinerary: Kelly Field to Hensley Field, via Corpus Christi and Houston; from Hensley Field, via Midland, to El Paso, remaining over here one day for maintenance and returning on January 27th to Kelly Field from El Paso via Midland.

The second echelon of the Pursuit Section was also scheduled to leave on January 24th, weather permitting, led by Captain B.M. Hovey, assisted by 2nd Lieuts. M.F. Stalder and W. Eades. The thirteen students (Flying Cadets) making the flight are listed below, viz:

N.E. Kearby	M.F. McNickle	F.C. Parker, Jr.
H.E. Kofahl	M.B. Marks	C.C. Wasem
W.W. Korges	K.R. Martin	J.R. Watt
G.M. MacNicol	R.L. Pusey	T.S. Proxmire, Jr.
	Hamilton McClure	

Enlisted mechanics accompanying the flight: Staff Sergeant T.J. Rogers, Privates M. Cummings and C.C. Maranville.

Airplanes comprising flight: 16 BT-8's.

Itinerary: Kelly Field to Midland to El Paso first day; following day to Hensley Field, via Midland, remaining over one day for maintenance; Hensley Field to Kelly Field via Houston and Corpus Christi.

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72ND BOMB. SQDN. RECEIVES HIGHEST RATING

The 72nd Bombardment Squadron, stationed at Luke Field, T.H., commanded by Major Oliver P. Gothlin, Jr., who succeeded Major I. H. Edwards, was determined as the highest rated squadron in the 5th Composite Group for the training year, ending October 31, 1937. This organization will be awarded the Department Streamer to be carried on its guidon.

There was considerable hard work connected with winning the above mentioned award. The entire personnel of the Squadron feel that they have been justly repaid for their efforts.

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In a B-17 "Flying Fortress" with a full combat crew, Captain Darr H. Alkire, 96th Bombardment Squadron, Langley Field, Va., on January 5th, accomplished a night navigation, bombing and machine gunnery mission to Maxwell Field, Ala., and return, without landing at Maxwell Field. The bombing was accomplished at 15,000 feet, and all members of the crew fired machine guns.

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During the month of December, 1937, the Engineering Department of the San Antonio Air Depot, Duncan Field, Texas, overhauled 13 airplanes and 25 engines and repaired a total of 31 airplanes and 9 engines.

"AND I LEARNED ABOUT FLYING FROM THAT"

En route from the Rockwell Air Depot, Coronado, Calif., to Lordsburg, New Mexico, in a C-33 Transport plane, with Sergeant C.C. Cunningham and Private 1st Class Yates as his companions, Staff Sergeant Arthur Hanson, Air Corps, was forced to land at Gila Bend, Arizona, due to engine trouble.

Staff Sergeant Hanson stated that about ten miles west of Gila Bend the left engine became very rough, noisy, and the cylinder head temperature went up to 350° C. "I cut the switch on left engine," he added, "turned selective fuel cock valve to right engine, propeller to low pitch - right engine r.p.m. to 1900. Attempted continuance of flight to Tucson at 7000 feet, but could not retain original altitude due to mild thunder storms and rough air, was losing altitude at the rate of 200-400 ft. per minute. Dumped main tanks, approximately 195 gals., with no appreciable decrease in altitude loss (Airspeed 90-100). After 20 minutes of flying I was forced to return to Gila Bend and land. Before engine trouble occurred the instruments read as follows: Right engine: Tach.1750; Manifold press. 26"; oil press. 60 lbs.; oil temp. 55°C; Cyl. Hd. Temp. 175°C; Carb. temp. 45°C; fuel press. 4 lbs. Left engine: Tach. 1750; Manifold pressure, 26.5"; oil pressure 55 lbs.; oil temp. 35°C.; Cyl. Hd. temp. 125°C.; carb. temp. 45°C.; fuel pressure 4 lbs. (Outside air temp. 18°C). (Dew point approx. 70 - reported). Upon landing at Gila Bend left engine was inspected and found one spark plug missing on Number 1 cyl. (rear plug). Threads in spark plug port were undamaged. New spark plug installed, and all spark plugs on both engines checked for looseness, and valves checked on left engine. Engine run-up O.K."

In view of the statement in the first paragraph, page 86, of Technical Order 01-40N-1, that level flight can be maintained with one engine at 8775 feet and of the fact that after the pilot dumped the main tanks there remained a comparatively light load in the airplane, the report of this forced landing was referred to the Air Corps Materiel Division for comment on the pilot's statement that he could not maintain his altitude when flying on one engine below an altitude of 7,000 feet.

The Materiel Division states that the horsepower available at 7000 feet at 1900 RPM, full throttle, under standard conditions with 1.1 deg. C. carburetor air temperature would have been 625 HP. This power corrected for the 45 deg. carburetor air temperature reported would be 580 HP, assuming no detonation as a result of the excessively high carburetor air temperature.

The horsepower available, had the pilot been able to obtain 1950 RPM, the rated speed of the engine, would have been 645 HP under standard conditions or 598 HP corrected for 45 deg. C. carburetor air temperature, again assuming no detonation.

However, in view of the high carburetor air temperature of 45 deg. C., which is 10 deg. C. in excess of the maximum set forth in Technical Order 02-1-5, detonation was probably encountered which tended to lower the horsepower still more below the maximum to be obtained under the conditions reported, assuming no detonation. With the outside air temperature of 18 deg. C. as reported, the amount of carburetor air heat used was excessive for full throttle operation of the engine.

Under the conditions stated in the flight report, it is not surprising that the airplane was unable to maintain flight on one engine. The loss of 65 HP due to operating conditions of the engine would reduce the rate of climb by 115 feet per minute. Such a reduction in rate of climb, combined with rough air conditions, would have made it practically impossible to maintain level flight on one engine. Assuming that the altitude of 7000 feet at which the pilot attempted to fly was pressure altitude, the density altitude corresponding to the indicated altitude and the reported temperature of 18 deg. C. was 9000 feet.

Level flight can be maintained at 8775 feet with one engine under standard atmospheric conditions with the engine turning at 1950 RPM and at full throttle power.

The change in the rate of descent caused by dumping 195 gallons of gasoline would hardly be noticeable. It is estimated that the rate would be reduced about 15 ft. per minute.

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ASST. SEC. OF WAR VISITS HAMILTON FIELD

The Hon. Louis A. Johnson, Assistant Secretary of War, paid a flying visit recently to the Hamilton Field Air Base, enroute to Portland, Oregon. Mr.Johnson had been inspecting Army posts and Air Corps stations on the West Coast and had made several speeches in this area on defense measures. Intending to fly north to Portland from Hamilton Field, he was prevented from doing so by adverse weather conditions, and left by train on the afternoon of Januaty 10th.

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The students of the present class at the Air Corps Advanced Flying School, Kelly Field, Texas, will graduate on February 16, 1938. There will be 61 students in the graduating class. Further details in this connection will be announced later.

NEW NAVIGATION CLASSES AT HAMILTON FIELD

Aviation is looking to the sea and the methods of old mariners to add to its knowledge of navigation in the air. New classes, to last six weeks, were begun the first of the year at Hamilton Field, San Rafael, Calif., in Dead Reckoning and Celestial Navigation, 33 pilots attending. The former is under the guidance of Lieut. Walter R. Agee and Lieut. Jack L. Randolph, and Lieut. Paul C. Ashworth instructs the latter class.

Dead reckoning, which is studied first, has a definite maritime origin, being originally "Deduced Reckoning," a term used by old mariners, and coming eventually to be abbreviated to the present Dead Reckoning. Mariners deduced their position at sea, just as now in aviation the term means calculating position in the air by "keeping track" through navigation instruments installed on the airplane, from a known point where the flight is begun. The instruments included are those which indicate speed, drift, altitude, and temperature.

Celestial Navigation, as the name indicates, is a means of calculating position by the sun, the stars, and the planets.

By the use of both these ancient but wise means of navigation, any defect in one is compensated by the other. Dead Reckoning can be considered an accurate method only up to 500 miles of the starting point of the flight, whereas Celestial Navigation can be performed any place in the world at any time.

The classes are interesting and highly important to the safety of men and equipment of the Air Corps, as well as making for greater efficiency in accomplishing the task required of pilots of a GHQ Air Force unit - that is, to fly to a designated point by the shortest possible route in the shortest possible time.

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EASY IDENTIFICATION OF AIR CORPS PLANES

Residents of Michigan, accustomed to the spectacle of the small drab Pursuit airplanes of the 1st Pursuit Group, are receiving what might be called a "treat for sore eyes," since the various squadrons have adopted distinguishing colors for their aircraft. In order to help identification in the air and on the ground, each squadron has adopted a distinct color which adorns the nose of the airplane. The cowlings around the motor are painted with this color, the 17th Squadron using white; the 27th, orange; and the 94th, red. In combination with the yellow wings and blue fuselages of all Army aircraft, these new colors present, to say the least, a startling aspect.

In addition to the distinctive colorings used, orders were issued by higher authority that each Army airplane will carry large identifying numbers on the upper and lower surfaces of the left wings, as well as on both sides of the vertical stabilizer. These numbers consist of two letters identifying the organization to which the airplane belongs and an additional number which is the airplane's squadron number. Any airplane in the General Headquarters Air Force may now be identified at a glance.

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VARIED DUTIES OF RECONNAISSANCE SQDNS.

As the eyes of the GHQ Air Force, members of the 88th Reconnaissance Squadron of Hamilton Field are rapidly becoming jacks of all trades and masters of most of them.

In former days, officers of the 88th would fly 25 miles, take a photograph and return. Now pilotage, photography and radio operation training are merely kindergarten courses.

Nautical almanacs have replaced maps for the present day navigator. With sextants and drift sights, long flights over water or other featureless terrain are now commonplace, where only a few years ago such flights would have been extremely hazardous. Pilots of the 88th 88th Reconnaissance Squadron no longer fly only small Observation airplanes. Now they must at any time be ready to fly a basic training ship or a Douglas B-18, land a Douglas OA-4A in a cow pasture, or a Sikorsky Y10A-8 in rolling seas. The observer not only "observes" and photographs, but also is a co-pilot and a bombardier.

Even their language has changed for those in the 88th Squadron. Throttles are pulled back in the BT-9, but are moved aft in the Y10A-8. The door is on the left in the B-18, but on the port side in the OA-4A. To the old observer, the target was five statute miles, 90 degrees right; now it is five nautical miles abeam.

"We of the 88th still considered ourselves observers, however, until last week," declares the News Letter Correspondent, "when, after parachute drill, fire drill and general emergency drill - we had life boat drill. Ahoy, Shipmates!"

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War Department Orders, recently issued, announce the termination, effective February 28, 1938, of duty of Brig. General Gerald C. Brant as Wing Commander of the 2nd Wing, GHQ Air Force, Langley Field, Va., and his assignment to duty, March 1, 1938, as Commandant of the Air Corps Technical School, with station at Chanute Field, Rantoul, Ill., directing and supervising both the Chanute Field and Denver (Colorado) branches of that School, with the rank of Colonel.

NO CHENEY AWARD FOR 1937

There will be no grant of the Cheney Award for the year 1937, the Chief of the Air Corps, Major General Oscar Westover, announced recently, adding that while there were several instances during the calendar year 1937 where Air Corps personnel performed heroic feats in connection with flying which involved risk of life, the Board of Officers appointed by him to select the person most meriting the Cheney Award, after careful consideration recommended that none of these cases exactly satisfied nor distinctly merited the Cheney Award.

The terms of the grant of this distinguished Trophy particularly state that it shall be awarded to the officer or enlisted man in the Army Air Corps, Regular or Reserve, for an act of valor of extreme fortitude or self sacrifice in a humanitarian interest, not necessarily of a military nature, but which shall have been performed in connection with aircraft.

The Cheney Award was established in memory of 1st Lieut. William H. Cheney, Air Corps, who was killed in an air collision at Foggia, Italy, on January 20, 1918. The donors of the award are Mrs. Mary L.C. Scofield, of Peterboro, N.H., and Mrs. Ruth Cheney Streeter, of Morristown, N.J., the mother and sister, respectively, of the deceased officer. They have jointly set aside a trust fund of $15,000, the interest accruing therefrom to be used to make the award, which is bestowed annually by the Chief of the Air Corps. The sum of $500 goes to the recipient along with a bronze plaque bearing the engraved name of the individual receiving it, together with a certificate of award.

The Cheney Award has been made annually since 1927, except for the years 1930 and 1934, when no awards were made for the same reasons as those prevailing this year, there having been no acts or incidents which seemed exactly to fit the terms of the grant or distinctly to merit it.

Master Sergeant Harry A. Chapman, of the 19th Airship Company, Langley Field, Va., was the first to receive this honor. It was granted to him for his heroism, presence of mind, and extreme fortitude during the great catastrophe on February 21, 1922, when the Airship ROMA crashed and burned. In subsequent years the honor has gone to Captain Ural G. Lnt, Air Corps, for 1928; Captain William A. Matheny for 1929; to 1st Lieut. Robert D. Moor (posthumously) and to Private John B. Smith for 1931; to Private Arden M. Farley for 1932; jointly to the late Lieut. W.L. Bogen, Staff Sgt. Doy D. Dodd and Sgt. Thomas J. Rogers for 1933; to the late Lieut. Robert K. Giovannoli for 1935, and jointly to Major Frederick D. Lynch and Staff Sgt. Joseph L. Murray for 1936.

FAIRFIELD AIR DEPOT BLOCK TEST BUILDING

The Fairfield Air Depot, Fairfield, O., is enjoying the facilities of a new and modern Block Test Building, which is constructed upon the original ideas of Major Ralph B. Walker, Chief Engineering Officer. This Block Test Building is located in the extreme north end of the field, approximately one-half mile from the shops. This eliminates the noise experienced when the Block Test was adjacent to offices and shops.

The Block Test Building is constructed of steel, tile and brick and contains eight torque stands of an improved type. The operator's rooms are sound-proof, amply heated, lighted and well ventilated. They are equipped with all modern recording instruments, including oil scales, gasoline flow meter and overhead oil supply system. All test stands are equipped with protective screen and the only access to the engines is through the operator's room. A complete overhead monorail system is installed enabling the conveyance of engines to any desired place in the building.

The building is equipped with a central steam plant for supplying heat to the building and test stands. A department for final preparation of engines for installation, storage and inspection will be added in the near future.

Captain R.E. Culbertson reports that the entire Engineering Department personnel is grateful for the relocation of the Block Test and the resulting improved working conditions.

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BOMBARDMENT SQUADRON MOVES TO HAWAII

In furtherance of its plans to build up Composite Wings of the GHQ Air Force in the Hawaiian Islands and Panama, the War Department, on January 20, 1938, ordered the 31st Bombardment Squadron from Hamilton Field, Calif., to the Hawaiian Department. This Squadron is equipped with the latest type Douglas twin-engine Bombers, known in the Air Corps as the B-18. Since it is a permanent change of station, the movement of the Squadron to its new home will be made by transport about February 1st.

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The 17th Pursuit Squadron, Selfridge Field, Mich., claims to be one of the few squadrons in the Air Corps, if not the only one, which has the original source of its insignia on file, Sergeant Cipelle having lately shot a "Great White Snow Owl" at Selfridge Field itself. There being no radiator caps on the Seversky P-35's, the stuffed owl now adorns the Day Room in the barracks. It has for company a beautifully mounted dear head - shot last fall by Private 1st Class Chism. 'Tis an eight-pointer.

OVER WATER SAFETY DEVICES FOR AIRPLANES

Various over water safety devices for landplanes have been developed by the Air Corps from time to time. They include flotation systems for large, thick-wing airplanes, bag flotation equipment for smaller airplanes, pneumatic life rafts, and life preserver vests.

Flotation Tank Equipment

In order to provide buoyancy for the larger types of land airplanes in event of a forced landing on water, the airplane fuel tanks built in the wing are made to play a double part. Besides serving as the fuel source for operation of the engines, they may be transformed in case of emergency into flotation equipment. To accomplish this result, the pilot pulls a lever in the cockpit which actuates a quick release valve on a cylinder of CO_2. From the cylinder the expanding CO_2 flows to the gasoline dump valve mechanism which is located on the bottom of the gasoline tanks. The dump valves are thus pressed open, permitting the fuel to escape. When the dump valves open, the CO_2 is directed automatically to an inlet orifice located in the top of the gasoline tank. The opening in the inlet orifice is such that a constant predetermined pressure is maintained in the tank during discharge of the gasoline. After the gasoline has been discharged, the dump valves are closed to prevent entrance of water into the tanks. Besides the fuel tanks, air-tight tanks are built into the wing to provide additional buoyancy.

The chemical CO_2 is used because it is an inert gas and serves to reduce fire hazard. The system is such that the CO_2 may also be used for extinguishing a fire in the wings should such occur during flight.

Rubberized Flotation Bags

For smaller airplanes which are to operate over water, rubberized fabric bags are stowed in the wing. In case of an emergency landing on water, these bags are automatically released and inflated. This operation starts with a valve actuator on the bottom of the airplane. When the airplane is submerged to a depth of 14 inches or more, the water sets up air pressure in the actuator tube which opens the valve of a CO_2 cylinder. The tripping of the cylinder permits the flow of gas to that portion of the wing which forms the covering for the flotation bags. A piston is actuated which pulls out pins releasing the covering, then fills the bags which snap into place like balloons, on top of a monoplane wing or beneath the top wing of a biplane. An actuator tube is placed on top as well as on the bottom of the airplane so that the system is effective whether the forced landing is with the airplane in normal position or nosed over on its back.

Portable flotation gear for rescue and salvage crews normally carried in boats is also in use. CO_2 cylinders are carried in racks and connected with the flotation bags. The bags are protected by canvas covers which are hastily removed in case of emergency before the cylinder valve is opened, releasing the gas into the bags. The bags inflate almost instantaneously and are lashed to the airplane wing with ropes. One bag secured over the center section is sufficient for small and medium size craft. Bombardment and cargo airplanes may require two bags.

Life Rafts.

Standard equipment for over-water flying is a life raft constructed of latex rubber tubes covered with cotton duck and a rubberized fabric bottom. When the tubes are inflated a canoe-shaped boat is formed with raised bow and stern. Oars, which jointed together may be used as paddles,are provided. Three sizes of rafts for various size airplanes provide for the rescue of one, three, or six persons. The color is yellow to attract attention from the air. The rafts are stowed in easy reach of personnel, usually in the cockpit. The inner latex tubes are equipped with valves and manifolds for CO_2 inflation. The cylinder containing the CO_2 is attached to the raft and feeds directly into the tubes. The weight of the three sizes varies from 36 pounds for the smallest to 55 pounds for the six-passenger type. A short line is attached in order that when the raft is tossed into the water inflated, it may be kept from floating from the airplane until the person or persons have entered. The raft is encased in an easily removable canvas cover for protection when not in use.

Present plans include the stowing of the raft in a wing compartment - or side of fuselage - with automatic inflation and release. A pull of a lever in the cockpit will release pins which will cause the compartment door or cover to fall off, tripping the valve of CO_2 cylinder and causing the raft to inflate and be ejected from the compartment.

Each raft is equipped with an emergency signal kit containing six red flares and a pyrotechnic pistol. In one instance, a service flyer was kept afloat for five days by one of these rafts, at the end of which time he was sighted by a steamer and rescued.

Life Preserver Vest

The life preserver vest consists of a two-tube latex bladder with a fabric outer cover. The tubes form an inverted U, extending from the waistline in front, with the curve of the U around the neck. Although normally both tubes are inflated, one tube will keep a person afloat for an indefinite period of time. The second tube acts as a reserve in case of a lack of malfunctioning of the first tube.

Mouth tubes are also provided for emergency should the CO_2 cylinders for any reason fail. Small CO_2 cylinders (.280-oz. capacity) fit in holders attached to the vest.

The design, which brings the tubes around the back of the neck, insures that the person will float face-up in the water. In case he were rendered unconscious due to accident and fell face down in the water, he would immediately be turned face up.

The life preserver vest is worn under the parachute harness. It is inflated by the pull of a cord which is attached to the holder containing the CO_2 cylinder.

Jungle Kit

Designed especially for use in United States island possessions and Panama in case of a forced landing in the jungles, a jungle kit has been provided which would supply immediate necessities. This kit, which is incorporated in the parachute back pad, forming a cushion, is attached to the parachute harness. It is fastened with an inter-locking fastener.

Neatly placed in water-tight containers in this kit are sufficient condensed food rations to support life for two days, a small quantity of quinine and iodine, a prismatic compass, a large machete for protection, or for cutting ones way through thick jungle underbrush, a fishhook in case water is near, matches, a mosquito net for the head, and cartridges for the standard service revolver carried by Army personnel on such flights. Kit material is cotton duck, similar to that used in parachute pack.

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AIR CORPS EXHIBIT AT CHICAGO AIR SHOW

The Army Air Corps is being well represented at the International Air Show in Chicago, Ill., January 28th to February 6th. Nine bays, or approximately 5,000 square feet of the huge International Amphitheatre Building were allotted for Air Corps exhibits. Among the most important of these are two airplanes and an autogiro. The airplanes are a Curtiss Attack and a Seversky Pursuit of the most recent types. The autogiro is a new Kellett which is being studied by the Air Corps services for determination of its military value. A platform erected over the fuselage of the A-18 Attack plane enables visitors to view its interior with its myriad instruments and other items of equipment.

In addition to these airplanes, there is an exhibit of bombs in sizes from 17 pounds to 4,000 bombs, also .30 and .50 caliber aircraft machine guns and a .37 mm. aircraft cannon. A Pratt and Whitney engine has been sectionalized and motivated for the information of visitors, this offering an interesting study in progress when compared with the Wright Brothers' original 4-cylinder engine placed near it. The most modern types of two and three-bladed propellers and a nine-lens aerial camera and prints are outstanding items of interest. Two transparency cabinets present all the newest types of military airplanes, each cabinet containing 24 views. Moving pictures of Air Corps activities, with sound comments by Lowell Thomas and other commentators are shown twice a day.

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AIR BASE COMMANDER IN FORCED LANDING

Colonel Davenport Johnson, Hamilton Field's Commanding Officer, landed a Douglas C-33 airplane in San Francisco Bay when, after a flight from Rockwell Field, Calif., both engines of the giant plane quit due to iced carburetors.

Colonel Johnson and his crew, composed of Lieut. Colonel C.E. Giffin, Lieut. Aubrey C. Moore, Staff Sgt. G.A. Parker and Private F.A. McCallum, had passed over Oakland around 5:00 p.m., and having received a favorable weather report from Hamilton Field had prepared for a landing when the incident occurred. Notifying the Air Base of the situation after several attempts to start the engines had failed, Colonel Johnson ordered the wheels retracted and the men to prepare for a crash landing. Plowing into the water in the same manner as one of the flying boats, the plane remained intact and floated.

The personnel, receiving no injuries, then busied themselves preparing floats and rafts in case they were needed. Due to the haze, visibility was poor and a fire was built on the wing to attract attention. The radio operator was able to send messages, but could not receive. The men were rescued 45 minutes after the landing by one of the Richmond Yacht Service Company's boats, one of the many surface craft ordered out for the search.

The C-33, having remained afloat, was towed to the Pan American Clipper station at Alameda. It was not badly damaged and will be in commission at a later date.

"The date of January 4th seems to be one of hazardous flying for the men at Hamilton Field," declares the News Letter Correspondent. "Colonel Johnson's forced landing recalls to mind that a year ago almost to the hour on January 4th, Lieut. H.E. Knierim and Private H.E. Roberts disappeared in a blinding wind and rainstorm when approaching the field for a landing. Bits of wreckage of that crash were scattered over a radius of 300 yards, mute evidence of the terrific impact."

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Special Orders of the War Department announce the relief of Lieut. Colonel Joseph T. McNarney from duty with the GHQ Air Force, Langley Field, Va., and his assignment to duty at Hqrs. 6th Corps Area, Chicago, Ill., about July 1, 1938.

LIEUT. LEE'S EXPERIENCES IN A PHILIPPINE TYPHOON

On December 8th, last, the newspapers throughout this country carried a dispatch to the effect that Lieut. William Lee, Air Corps, accompanied by Major General Santos and Colonel Segundo, of the Philippine Army, flying in a transport airplane, were missing following the typhoon which swept the Philippine Islands on December 6th.

Four days later, the missing officers were located on Anirong Island by Lieut. Alfred Maxwell, pilot of one of a number of Air Corps planes engaged in the search for them.

Lieut. Lee's own story of his experiences during this flight, his landing on a small, unknown island, his several days' stay there during a furious wind and continuous rain, and his subsequent rescue is recounted below, viz:

The following radiogram was received at Cebu at 7:28 AM.,December 6,1937 from Philippine Army Headquarters,Manila:

> "Number one typhoon signal hoisted three AM near over Tablas Island moving northwest or west by Weather Observatory, Manila."

This message was signed by operator on duty KZPT, Manila. In addition to the above telegram, I heard the weather report which was broadcasted from Manila around 7:00 AM on December 6th, and which was the same as published in Manila Bulletin on the same date. The above telegram and the weather report broadcasted led me to believe that weather conditions were not favorable over the usual route flown from Cebu to Manila, which is from Cebu over the northern part of Negros, northern part of Panay up the east coast of Mindoro and over Batangas. However, it was believed that favorable flying conditions would be found over the other route, which is from Cebu to Masbate and up the Bondoc Peninsula. We had been delayed one day at Dumaguete and one day at Cebu on account of weather. General Santos was suffering from an infection of the foot and all of us thought we should soon get to Manila. I was personally anxious to get to Manila because I wanted to have an engine check made on our plane and return promptly to Cagayan, Oriental Misamis,to check the airplane which Lt. Andrews had damaged in landing,before he attempted to fly it back to Manila. However, had I known that we would encounter such hazardous flying conditions, I naturally would never have left Cebu.

In this connection, it should be understood that the flight commander in this case, myself, is solely responsible of determining when a flight should begin. Neither General Santos nor any other high ranking Philippine Army Officers urged me to start when I did. Never had any passenger of mine asked me to make a flight which, in my own judgment, I believed to be dangerous or hazardous. High ranking Philippine Army officials have always left to me all decisions regarding flying. I have flown in the Philippine Islands since March, 1935 and have been over the routes between here and Cebu many times. Believing that the weather was favorable for flying conditions, I made the decision to leave Cebu on the morning of December 6th over the Masbate route and advised the District Commander of Cebu to send a radiogram at Army Head quarters advising them about the route which we were taking. It was my idea that we would not encounter any hazardour flying conditions and that if we did, we could land at Masbate, Legaspi, Pili, Daet or Paracale in case the weather became too bad.

We cleared the airdrome at Cebu at 8:35 AM on December 6th, having no other information about the weather other than that above stated and flew a course of 350 degrees which brought us approximately over the city of Masbate at about 10:00 AM. We were flying some seven to eight thousand feet in order to clear scattered clouds. After passing over Masbate, I steered a course of 315 degrees which would have brought us up the southwest coast of the Bondoc Peninsula. After flying this course for some time (I don't remember how long) and after reaching the point of Bondoc Peninsula, the clouds became heavy and quite thick. Directly ahead of us, and on our left or to the west, the clouds were much thicker and weather conditions looked unfavorable. On our right or to the East the clouds were lower and flying conditions looked favorable. Also, I had the several fields I have mentioned above in mind in case of emergency landings, so I turned to the course of 70 degrees and flew this course for approximately 30 minutes which brought me out over Camarines Norte south of Daet. To my left, or approximately 330 degrees, the weather appeared to be breaking, so I headed the ship on a course of 330 degrees and flew along the northeast coast of Camarines Norte some distance from the shore line. We were then flying approximately 11,000 feet. We encountered quite a few thunderheads,the larger ones we flew around and the smaller ones we flew through by instruments. However, none required more than a minute to two minutes to get through them.

Off to my left which was west, the weather looked bad, but straight ahead weather conditions appeared to be all right at the altitude of which we were flying. This led me to believe that I

could go around the bad weather on the left and get into Manila without encountering any hazardous flying conditions. Straight ahead was one fairly thick thunderhead into which I flew. When I flew through it, which required about two minutes, I looked to see if the other two ships were following. I did not see Lt. Francisco who was flying on my right, but I did see Lt. Sales who was flying on my left. He had apparently lost me in the cloud, so he turned away to the left and was losing altitude going in opposite direction from which I was. It appeared that he was planning to get down below the heavy clouds. From this time on, I never saw either of the two ships again, but shortly after Lt. Sales left us, we encountered heavy thick weather, however, not dark nor stormy.

I had to resort to my instruments with the hope that the heavy thick clouds I had encountered would only last for a few minutes, but after some 10 minutes of flying, it appeared that we would not run out of these clouds. I then changed my course to the west. I flew that course for several minutes and then headed south for several minutes. During all this time, I was flying by instruments. Realizing that I was in something bad and that it was impossible for me to get out, I decided to lose altitude so that I could pick up land and water. I was not sure of our exact position, but thought that I might be over the mountains on the east coast of Luzon. I therefore decided, in order to play safe, that I had better fly an easterly course for a few minutes so that I would be more or less sure of being over water and therefore not run into mountains while flying by instruments and while losing altitude.

After flying a few minutes east, I started losing altitude gradually in a big spiraling turn. After losing altitude to approximately 6,000 feet I could tell that we were over water and the thoughts of hitting mountains were dismissed. At this time, I advised General Santos and Col. Segundo to get the life vests from behind the back seat and blow them up by mouth and put them on. (These life vests are automatically operated by pulling a small cord which releases the gas from the container which inflates them.) However, I told them to conserve this gas and instructed them to blow their life preservers up by mouth. They each got a life preserver and blew them up. I instructed them as to how to put them on. After they had put on their life preservers, I asked Col. Segundo to get one for me and blow it up, believing that we would eventually have to land in the water. I was taking this precaution to be prepared so that any possibilities of drowning would be lessened. When Col. Segundo started to blow up my life preserver, he sighted land from his side of the airplane. I made a steep bank and picked up the land that he sighted and kept this in view while I rapidly lost altitude down to approximately 200 feet.

When I got down, I could see several small islands; however, not as distinct as on a clear day, but I could see their outlines and could tell the height of hills, etc., on them. I did not know what group of islands they were, but I knew that it would be impossible for us to get much farther as our gas was running low (having 40 or 45 minutes of gas left), so I began to look for a beach on which to land. After circling two islands, I picked up a sandy beach on one and decided to land. Soon after, getting down to where we could see and we could distinguish land, General Santos wanted to know if we were going to jump and I advised him "No" and that they should keep their safety belts as tight as possible because I was afraid that if I landed on a beach, that I might nose the airplane up which might injure them. After spotting this beach, I decided that this was the best place to get down and made a wide circle over the water heading the airplane into the wind, throttled down the engine and came in for a landing. The wind was blowing very strong and the sand was very soft (the wheels sank into the sand some six to eight inches), so when I landed, I did not roll more than 50 to 60 feet and just as the plane stopped rolling, it nosed up which was due to the soft sand acting as a brake on wheels. One blade of the propeller was slightly bent and this was the only damage done to the plane. This was at 12:25 PM. December 6th.

When the airplane nosed up, our hats and portfolios which we had on the back seat fell forward. Immediately after landing, Col. Segundo opened the door on his side, permitting our hats to fall out. I managed to rescue my 11-year old Stetson, but had to abandon Col. Segundo's which was in very deep water. Immediately, I rushed back to the plane and told them that if we could pull the plane down to normal position we could stay in it, sheltered from the wind and rain. I got a rope out of the baggage compartment and then over the tail. General Santos and I pulled it while Col. Segundo lifted the nose and without trouble, we pulled the tail down and had the airplane in a normal position. We climbed into the cabin and for a few minutes discussed matters, trying to determine exactly where we were. Very shortly, a man (he and his wife were the only inhabitants on the island) came up to the airplane. General Santos and Col. Segundo talked with him for several minutes and veri-

ified our position, which was Anirong Island. They also negotiated for some food and water. The old man went away and within 30 minutes he returned with a big pot of steaming rice and nine hard-boiled eggs and two large fresh cocoanuts, to us, a feast. General Santos gave him a peso which I considered a most brilliant investment. Soon after the old timer left, the rain slackened. General Santos and Col. Segundo decided to do a little reconnoitering and to find some stakes which I wanted to use in tying down the plane. They returned with the old man, who had stakes and a bolo which we used in securing the plane to prevent it from being blown away. We decided to stay in the plane for the night.

While General Santos and Col. Segundo had been in the old man's nipa hut they talked of the possibilities of existing for an indefinite period in the islands. They estimated that they had some fifteen big chickens, one pig of about 30 or 40 pounds, plenty of cocoanuts, three big sacks of rice and other food, as well as plenty of fresh rain water. Obviously, we were in no immediate danger of starvation.

Shortly after it began to get dark, the wind appeared to be stronger and we decided to leave the airplane for fear that we would be blown out to the sea with it. I got my flashlight out of my handbag and we started for the man's hut. We walked only some 50 yards through the cocoanut groves when the flashlight went out. The wind was blowing 30 miles an hour; darkness was almost complete and rain fell in torrents. Luck was against us, but we determined to get to the old man's house. We held hands in order not to get lost from each other, and after stumbling around over logs, brush and bogs, we spotted a light and headed straight for it. When we got to the hut, a small fire was going. We spent a very miserable night trying to keep warm and sleep at the same time. I was up and down all night putting wood on the fire and warming myself. I could not do much sleeping for several reasons: I was cold; I was trying to sleep on a hard board floor with a sack of rice for a pillow; then, also, I had Lts. Sales and Francisco in mind.

The leader of any flight in aviation, regardless of the size, is always responsible for his men that are flying the other planes. In this particular case, I figured that there was a possibility that both Lts. Sales and Francisco had become involved in even worse difficulties than ourselves, and I felt that, if the worst had happened, I would be responsible for having led them to their death. This was not only a source of worry to me during this first night, but for every night thereafter until Lt. Maxwell dropped a note from his airplane advising me that they had landed safely near Infanta. That was the best and most welcomed news that I have ever received.

Throughout the time in the island, the wind blew furiously and we had continuous rain. We knew that it was impossible for airplanes to make a search for us in such weather conditions and decided that we would have to remain lost and unheard from for an indefinite period, since it was impossible for our host to take a banca and go to Burdeos with a message.

General Santos had two books and I had several magazines with which we tried to pass the time, but about every 10 minutes, I would go to the door of the hut and make an estimate of the weather conditions. The first symptoms of any possibility of a weather break was Wednesday night, December 8th. Colonel Segundo spotted the moon and a few stars shining through a broken place in the clouds. We predicted good weather for the following morning, but were very badly disappointed within an hour when it was again raining hard. It rained on Thursday until about 2:00 PM. when it started to clear. About 5:00 o'clock, we heard an airplane and figured the search was on and we were shortly to be found. We rushed to the beach and saw an airplane some 10 miles away at approximately 4,000 feet heading for Manila. Through my field glasses, I identified it as a P-12 (Pursuit), but had no idea who was flying it, or where they had been. I later learned that it was Capt. Lewis who had made a rush trip to Jomalig Island to see if we had landed there. He was on his way back to Manila, and at that time he only had sufficient daylight time to get home before dark.

The following morning, which was Friday morning, the weather was clear and favorable. At about 9:00 AM. we sighted two O-19's (Observation planes) heading southeast. They were soon lost from sight, but about 9:30 AM, we spotted an O-19 heading directly for the island. Shortly before reaching the island, we heard the motor throttle down and the plane started on a long glide and we knew that the pilot had sighted our plane. The plane circled our plane and then circled over us. He flew around for several minutes, then came back and dropped us a message which advised us that Lts. Sales and and Francisco had landed safely at Infanta, and that he would send an amphibian airplane to pick us up as soon as possible. This message was signed by Lt. Maxwell who was the pilot to discover us. He is Commanding Officer of the Second Observation Squadron at Nichols Field and has been in the Philippines since January, 1935. He is due to return to the States in February,

1938, but there are at least three persons in the Islands who will keep him fresh in their memories.

At 6:30 on the morning of Friday, December 10th, our host and his wife left in their banca for Burdeos with a message that we had drafted, to be sent to the Adjutant General, in Manila. This message was to be sent to Polillo by runner and our host was to get a launch at Burdeos and return to the islands for us. He returned to the island about 11:00 AM with the launch. Although, by this time, we had been discovered by the U.S. Army Air Corps, we kept the launch until we sighted the rescue plane actually coming for us.

At 11:50 AM the amphibian, piloted by Capt. S.E. Prudhomme, landed. We got our baggage and took off at 12:20 PM and landed at Nichols Field at 1:05 PM.

Recently I heard some discussion as to whether or not the Weather Bureau had rendered us efficient service. It did. In my years of flying in the Philippines, the Weather Bureau has been of the utmost help on all occasions, and I can say only that I hope it continues to render as good service in the future as it has in the past.

For Lts. Sales and Francisco, pilots of the other two planes, this was an invaluable, never forgettable lesson. Certainly, it was for me. I must say, too, that it was the worst predicament that I have ever gotten into during my flying career. I shall not seek another.

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KEEPING PURSUIT PILOTS ON THEIR TOES

Pilots of the Pursuit Squadrons composing the 1st Pursuit Group at Selfridge Field, Mt. Clemens, Mich., are being put through a rigid series of examinations. The purpose of these tests is to insure, as far as is humanly possible, that Air Force pilots understand and obey the many changes in procedure, both on the ground and in the air, which have occurred in the last few months.

These examinations are given periodically from month to month and must be passed with a score of 100% by every pilot of the Group. Those who fail to make a grade of 100% on the first examination are given one week in which to qualify themselves for reexamination. A typical set of questions for one of these examinations follows:

I. Definitions.

1. What is a flight plan and what does it contain?
2. What is a controlled airport?
3. What is a controlled zone?
4. Describe a controlled zone of intersection.
5. Describe "Center of Controlled Zone of Intersection."
6. Describe "Green Zone of Intersection," "Amber Zone of Intersection," "Red Zone of Intersection."
7. Describe "Zone of Intersection Priority."
8. What is an alternate airport?
9. What is a contact flight.

II. Flight Rules, General

1. Aircraft approaching for a landing shall maintain a straight glide path for how many feet before crossing the airport boundary?
2. When two aircraft are crossing courses at approximately the same altitude, which aircraft has the right of way?
3. Upon approaching or overtaking aircraft, which way shall aircraft give way (right or left)?

III. Flight Rules Contact.

1. What are flight altitude rules for contact flights on a civil airway?
2. What are considered minimum safe altitudes?
3. What are the restrictions for contact flights within a controlled zone, with respect to distance below an overcast?
4. What are the restrictions for contact flights within a controlled zone, with respect to the distance above an overcast or thin cloud level?
5. a. What are the weather minimums outside a controlled zone for day contact flights at or below 1000 feet above the ground? b. Above 1000 feet above the ground?
6. a. What are weather minimums outside a controlled zone for night contact flights at or below 1000 feet above the ground? b. Above 1000 feet above the ground?
7. If weather conditions while enroute on a contact flight change to below minimums, what is required of the pilot?

IV. Instrument Flights

1. What are the instrument flight altitudes for Green, Amber and Red Airways?
2. What are the instrument flight altitudes off the Civil Airways?
3. What is the procedure for an instrument flight on an Amber Airway proceeding thru an Amber Zone of Intersection to (a) continue flight on an Amber, (b) to turn right on Red, (c) turn left on Red?

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A Douglas OA-4A was recently ferried to Selfridge Field, Mich., by 1st Lt. John K. Gerhart, Air Corps, from Langley Field, Va. This "duck" is to be used for rescue work over Lakes Erie, Huron and St. Clair. A new steel wing has been installed on this airplane, replacing the old type.

OBITUARIES

Two promising young officers were lost to the Air Corps as the result of an unfortunate airplane accident on January 21, 1938, at Overhill, N.C., two miles north of Pope Field, Fort Bragg, N.C., when an O-46A airplane, piloted by Second Lieut. Lewis E. Countway, Air Reserve, with 1st Lieut. Earle T. MacArthur, Air Corps, passenger, crashed and burst into flames.

Lieut. MacArthur was born at Atoka, Oklahoma, August 27, 1907. After passing through grammar schools and high school, he attended the New Mexico Military Institute for one year, and the College of Engineering, University of Colorado, for two years. For 2½ years he was a member of the 157th Infantry, Colorado National Guard.

Appointed a flying cadet in the Air Corps, he graduated on June 27, 1929, from the Primary Flying School at March Field, Calif., and from the Advanced Flying School, Kelly Field, Texas, where he specialized in Attack Aviation, on October 12, 1929, on which date he was rated as "Airplane Pilot" and commissioned as Second Lieutenant in the Air Reserve.

Lieut. MacArthur was assigned to extended active duty at Fort Crockett, Galveston, Texas, where he was stationed until March 9, 1933, serving first with the 60th Service Squadron and later with the 90th Attack Squadron. He passed the examination for appointment in the Regular Army, and was commissioned a Second Lieutenant in the Air Corps, with rank from January 6, 1930.

Ordered to duty in Hawaii, Lieut. MacArthur served with the 75th Service Squadron at Wheeler Field to March 23, 1935, when he was transferred to Chanute Field, Rantoul, Ill., where he served with the 45th Pursuit Squadron until September 16, 1935, and then entered as student in the Aerial Photographic course at the Air Corps Technical School. He graduated from this School, with the rating of "Superior" on June 30, 1936, and was then transferred to duty at Pope Field, Fort Bragg, N.C.

Lieut. Countway was born at Quincy, Mass., November 27, 1914. He attended grammar schools and high schools in that city, and in 1936 graduated from the Northeastern University. Enlisting as a Flying Cadet June 25, 1936, he graduated from the Primary Flying School at Randolph Field, Texas, February 25, 1937, and from the Advanced Flying School, Kelly Field, Texas, June 30, 1937, specializing in Observation Aviation, and being rated as Airplane Pilot and Airplane Observer as of that date. He was commissioned a second lieutenant in the Air Reserve on that date and assigned to active duty for a period of three years at Pope Field, Fort Bragg, N.C.

The deep sympathy of the Air Corps is extended to the bereaved families of these young officers who died in the service.

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ASST. SECRETARY OF WAR VISITS MARCH FIELD

By the News Letter Correspondent

"America's present aircraft is the largest and finest in the world. But our plans for the future extend further, and you may say that the Army is ready," said the Hon. Louis A. Johnson, Assistant Secretary of War, upon his arrival at March Field by air on January 3rd, last.

Mr. Johnson's visit to the West Coast was the result of an invitation extended by Mr. Earl C. Gilmore, President of the Gilmore Oil Company and President of the Los Angeles Chapter of the Army Ordnance Association. Mr. Johnson was guest of honor and speaker at a banquet held by the Association at the University Club in Los Angeles. He spoke on "War Referendum, a Menace to Peace." In the course of his address he stated that "We are prepared. We have contracts right now with more than 10,000 large manufacturers, many of them in Los Angeles, pledging them to step into action the minute they are needed, if war comes. These firms are equipped or can quickly equip themselves for any emergency they may be called upon to meet."

The banquet was attended by Colonel Pirie, Air Base Commander, March Field; members of the Ordnance Association, and prominent business men and political leaders of Southern California.

While in Southern California, Mr. Johnson inspected March Field and airplane factories in the Los Angeles metropolitan area. Upon his arrival at March Field, he was met by Colonel Pirie and his staff.

From Los Angeles, Mr. Johnson flew to San Francisco, where he spoke on "Industrial Mobilization," and from San Francisco to Portland, Oregon, where he was the guest speaker at the "Jackson Day Dinner."

The C-32 in which Mr. Johnson was flying was piloted by Lieuts. J.W. Persons and Jesse Auton, of Bolling Field, D.C. Lieut. Auton, Mr. Johnson's aide, was recently stationed at March Field. The officers of this station greatly enjoyed renewing acquaintanceship with this splendid young officer.

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Staff Sergeant Preston A. Cuthbertson, stationed at Fort Bragg, N.C., was appointed a Technical Sergeant, Air Corps, January 20, 1938, to fill a vacancy at Mitchel Field, N.Y. For the present, Technical Sergeant Cuthbertson will remain on detached service at Fort Bragg.

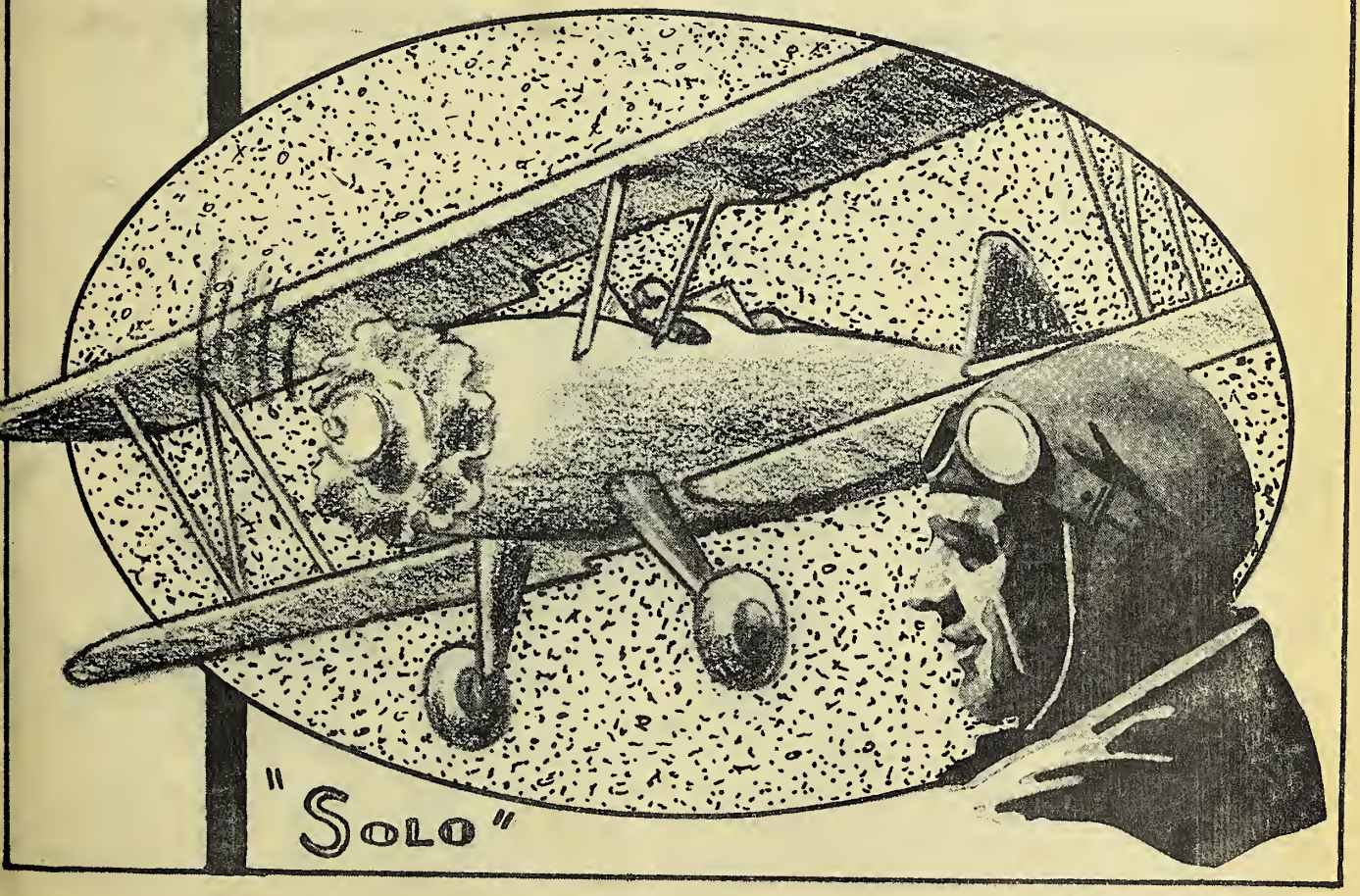
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Selfridge Field, Mt. Clemens, Mich., has the unusual honor of having the two ranking officers of the Air Corps on the field within a few hours of one another. Major General Frank M. Andrews, Commanding the GHQ Air Force, arrived on January 12th and left at 10:30 a.m. on the 13th. At 1:00 p.m., Major General Oscar Westover, Chief of the Air Corps, dropped in from Cleveland and remained overnight.

V-7021, A.C.

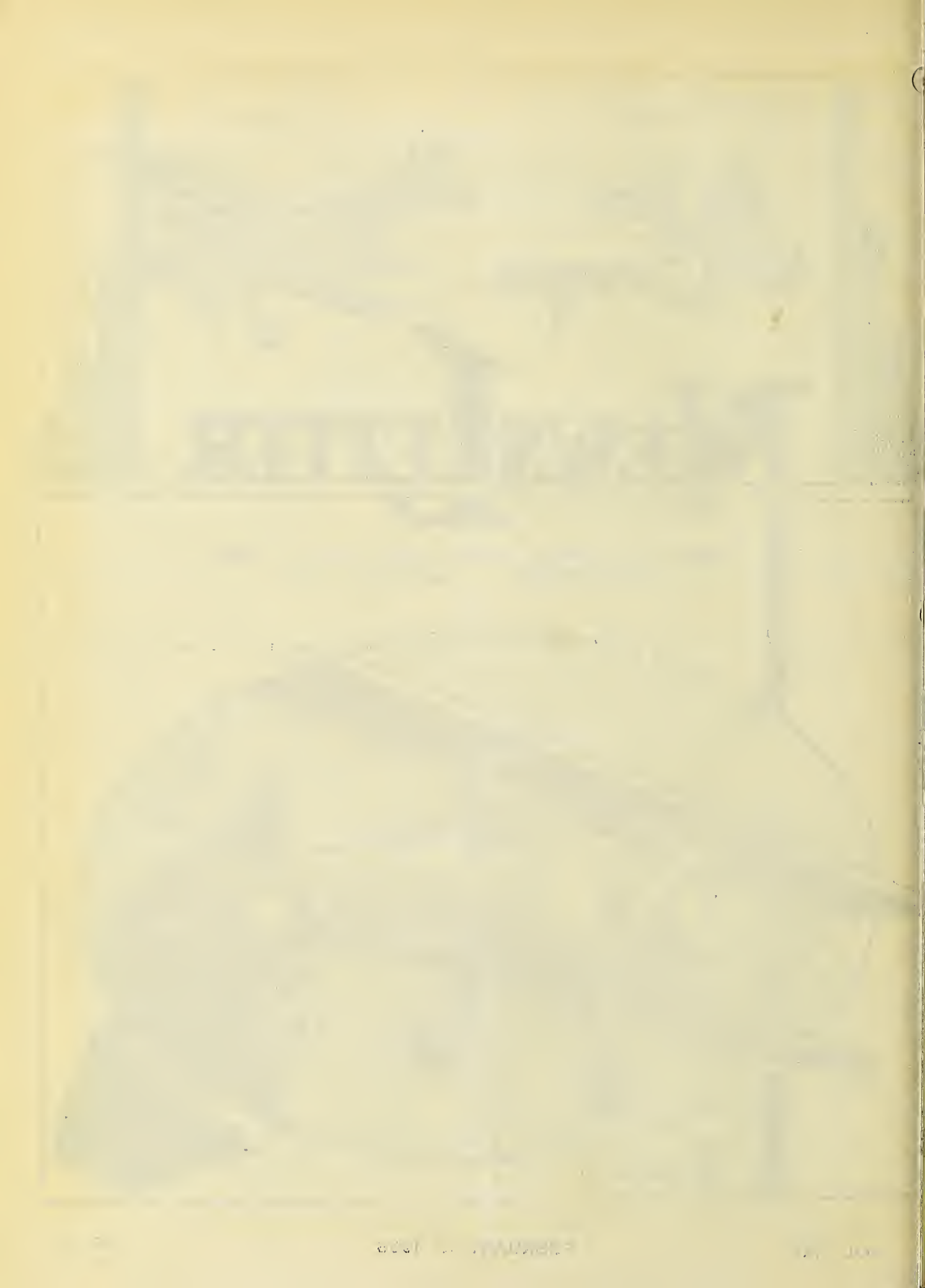
Air Corps NEWSLETTER

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WAR DEPARTMENT, WASHINGTON, D.C.



"SOLO"

VOL. XXI FEBRUARY 15, 1938 NO. 4



VOL. XXI AIR CORPS NEWS LETTER NO. 4.
Information Division, Air Corps — February 15, 1938 — Munitions Building, Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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THE ARMY AIR CORPS FOR 1937 - A REVIEW

Ed. Note: The review of Air Corps activities and of various aeronautical events during the calendar year 1937, as hereinafter given, is not intended as a full and complete chronology thereof. The necessary time required to conduct the research work incident to the compilation of a complete chronology has not been available. Furthermore, space is lacking for the publication of a more complete report. It is believed, however, that the chronology of events given here should afford the reader a fair idea of the various activities in which the Air Corps was engaged during the past year.

C H R O N O L O G Y

Personnel - Appointments, Changes, etc.

The first Army Air Corps officer to achieve the distinction of being appointed a permanent general officer of the line of the Army was Brigadier General Henry C. Pratt, whose rank dates from January 1, 1937.

Lieut. Colonel Robert Olds was on March 6th appointed Commanding Officer of the 2nd Bombardment Group, GHQ Air Force, Langley Field, Va., succeeding Lieut. Colonel Charles B. Oldfield, who was placed in command of all Air Corps activities at Fort Lewis, Wash.

Brigadier General Gerald C. Brant was relieved from the command of the Third Wing, GHQ Air Force, Barksdale Field, La., March 15th, and assigned to the command of the 2nd Wing at Langley Field, Va.

Colonel Arthur G. Fisher, Commandant of the Air Corps Tactical School at Maxwell Field, Ala., assumed command of Scott Field, Ill., on March 22nd. Other changes in station commanders announced at about this time were the assignment of Colonel Lawrence S. Churchill, Commanding Officer of the Middletown Air Depot, to Langley Field; Colonel Jacob W.S. Wuest, Commanding Officer of the Rockwell Air Depot, to assume command of the Middletown Air Depot; and Lieut. Colonel Harold A. Strauss, Chief of the Procurement Section, Materiel Division, Wright Field, Ohio, to assume command of the Rockwell Air Depot, Coronado, Calif.

Effective April 1, 1937, Colonel Frederick L. Martin was appointed to the temporary rank of Brigadier General, Air Corps, and assigned to duty as Commander of the Third Wing, GHQ Air Force, Barksdale Field, La. Prior to that time he was on duty as Executive Officer of the Air Corps Materiel Division, Wright Field, Chio.

Lieut. Colonel Ralph Royce, who commanded the First Pursuit Group at Selfridge Field, Mich., for a number of years, was on May 15th assigned to duty in the Philippine Department.

Effective June 14th, 17 First Lieutenants of the Air Corps were promoted to the rank of Captain, followed by the promotion of 19 additional First Lieutenants to Captain, effective June 30th.

On June 22nd, Colonel Harvey S. Burwell took over the command of the 19th Bombardment Group, March Field, Calif., relieving Lieut. Colonel Hubert R. Harmon, assigned as student at the Army War College.

Lieut. Colonel Junius H. Houghton was on July 1st designated as Commandant of the Air Corps Weather School, established at Patterson Field, Fairfield, Ohio.

Lieut. Colonel Henry J.F. Miller assumed command on July 8th of the San Antonio Air Depot, Duncan Field, Texas, relieving Colonel John H. Howard, who was assigned to duty as Air Officer of the 7th Corps Area, Omaha, Neb. Major Douglas Johnston took over the command of Brooks Field, Texas, succeeding Lieut. Colonel Miller.

Lieut. Colonel Ross G. Hoyt, on September 14th, assumed command of the 20th Pursuit Group at Barksdale Field, La., succeeding Major Armin F. Herold, who was assigned as Commanding Officer of the 79th Pursuit Squadron.

Purchase of New Airplanes

During the calendar year 1937, announcements were made by the War Department of the approval of the award of contracts for new airplanes for the Air Corps, as follows:

February 25: To the Sikorsky Aircraft Corporation, Bridgeport, Conn., for five S-43 Amphibian airplanes, and spare parts equivalent to one complete Amphibian plane, at a total cost of $633,898.00.

March 2: To the Kellett Autogiro Corporation of Philadelphia, Pa., for six Autogiros, complete, with spare parts, at a total cost of $238,482.18. The purchase was made following exhaustive tests by the Air Corps in conjunction with the Infantry, Artillery and Cavalry during approximately 18 months, using the models from several Autogiro Corporations.

April 10: The contract heretofore made with the North American Aviation for basic training planes was increased by a total of 73 planes and a complement of spare parts at an additional cost over the original contract of $903,380.99.

June 2: To North American Aviation, Inglewood, Calif., for 85 Basic Combat planes and the equivalent of 10 additional planes as spares, at a total cost of $1,372,355.00.

June 10: To the Douglas Aircraft Co., of Santa Monica, Calif., for 177 two-engine Bombardment airplanes, together with necessary spare parts for same, in the sum of $11,651,948.

July: To the Boeing Aircraft Company, Seattle, Wash., for 10 more B-17 Bombardment planes, the contract including an option for three additional Bombers, making a total of 13 on this order, and an adequate complement of spares, for a total sum, with the exercise of the above-mentioned option, of $3,708,002.20.

July 6: To the Curtiss Airplane Division of the Curtiss-Wright Corporation, of Buffalo, N.Y., for 210 monoplace Pursuit planes, together with an adequate complement of spares, at a total cost of $4,113,550.00.

September 9: To the Glenn L. Martin Company, of Baltimore, Md., for spare parts for YB-10, YB-12 and B-10B Bombardment planes, in the total amount of $47,857.56.

September 28: To the North American Aviation, Inc., of an additional order on a previous contract for 34 model BT-9C airplanes and spare parts at a total cost of $411,500.90; same to be used in the training of the Organized Reserves of the Air Corps.

October 4: To the Douglas Aircraft Company, Inc. (Northrop Division) for spare parts for Northrop Attack planes in the amount of $50,853.63.

October 8: To the Boeing Aircraft Company for 13 additional B-17 Bombardment planes and spare parts at a total cost of $2,518,346.83.

October 21: To North American Aviation for 55 additional Model O-47A Observation airplanes and spare parts at a cost of $1,731,407.08, 48 of these airplanes being procured for National Guard organizations and 7 for Regular Army units.

October 23: To the Stearman Aircraft Company of Wichita, Kansas, for an additional number of PT-13A Primary Training planes and spares, amounting in all to $122,229.20.

November 9: To the Douglas Aircraft Company a supplemental contract for 29 additional A-17A Attack airplanes at a total cost of $654,155.90.

November 8: To North American Aviation, Inc., for 95 Basic Combat planes and spare parts at a total cost of $1,490,972.96.

December 11: To the Curtiss Division of the Curtiss-Wright Corporation for a service test lot of 13 P-37 Pursuit airplanes, and the necessary spare parts, amounting in all to $531,305.12.

Purchase of Engines.

January 4: To the United Aircraft Company (Pratt & Whitney Division) of East Hartford, Conn., for spare parts for 315 Model R-1835-13 engines in the total amount of $318,521.67.

January 4: To the United Aircraft Company (Pratt & Whitney Division) for 142 Model R-1340-47 engines and spare parts for installation in BC-1 airplanes, in the total sum of $866,800.59.

March 6: To the Wright Aeronautical Corporation, Paterson, N.J., for 141 Model R-1820-49 geared "Cyclone" engines, for installation in O-47A airplanes, in the total amount of $1,099,729.50.

June 24: To the Wright Aeronautical Corporation for 531 "Cyclone" engines and spare parts, for installation in B-18A Bombardment planes, in the total sum of $5,315,310.00.

September 1: To the Pratt & Whitney Division of the United Aircraft Company, East Hartford, Conn., for 455 "Wasp" single row, direct drive, 550 h.p. engines and spares for installation in Basic Combat planes, at a total cost of $4,153,938.06.

December 2: To the Wright Aeronautical Corporation for 156 Type R-1820-59 "Cyclone" 9-cylinder, single-row engines, delivering more than 1,000 horsepower, for installation in B-17 Bombardment airplanes, at a total cost of $1,340,976.00; also for 82 Type R-1820-49, single-row, 9-cylinder engines, delivering 850 horsepower at sea level, for installation in O-47A airplanes, at a total cost of $703,514.89

December 2: To the United Aircraft Corporation (Pratt & Whitney Division) for 43 Model 1535-13 geared aircraft engines and spare parts at a total cost of $447,328.80. These are double-row, radial, 14-cylinder engines, developing 750 horsepower, for installation in A-17 Attack airplanes.

DECORATIONS AND AWARDS

Decorations and awards made during the calendar year 1937 to Air Corps personnel for heroic conduct or distinguished service in connection with flying are enumerated below, as follows:

Announcement was made in General Orders of the War Department, dated February 1, 1937, of the award of the following decorations to Air Corps personnel, viz:

Distinguished Flying Cross

Donald W. Buckman, Captain (1st Lieutenant), Air Corps, U.S. Army. For heroism while participating in an aerial flight from March Field, Calif., to Bakersfield, Calif., November 12, 1935. While piloting a C-14 airplane carrying three passengers, Captain Buckman was seized by an excruciating pain in the vicinity of his heart, when he was approximately 50 miles from his destination. Although suffering intensely, Captain Buckman maintained control of his ship and effected a safe landing at Bakersfield Airport, where he collapsed and died shortly afterward. The decoration was presented to his widow, Mrs. Madeline Stone Buckman, at Randolph Field, Texas, by Brigadier General James E. Chaney, Commandant of the Air Corps Training Center, on February 10, 1937.

Hez McClellan, major, then captain, Air Corps, United States Army (Posthumously). For extraordinary achievement as commanding officer and pilot on a cross country flight from Washington, D.C., to Nome, Point Barrow, and other Alaskan points during the summer of 1935. Captain McClellan planned the entire flight, voluntarily commanded it during its entirety, and personally piloted the airplane over the thousands of miles of desolate, rough and sparsely inhabited country. He displayed outstanding initiative, resourcefulness, and professional skill under the many trying conditions encountered, and by

his tireless energy, sound judgment, and personal courage rendered possible the successful completion of this flight. The information concerning the operation of military aircraft in Alaska secured by Captain McClellan while on his extensive air and ground reconnaissances has proved of particular value to the Air Corps.

Henry H. Arnold, brigadier general, then lieutenant colonel, Air Corps, United States Army. For extraordinary achievement while participating in an aerial flight as pilot and commanding officer of a bombardment squadron of ten airplanes, from Washington, D.C., to Fairbanks, Alaska, and return, from July 19 to August 20, 1934. By his untiring energy, fearless leadership and extraordinary professional skill, Lieutenant Colonel Arnold organized, directed, and completed over 18,000 miles of exceptionally dangerous flying, including a nonstop flight from Juneau, Alaska, to Seattle, Washington, a distance of 950 miles over water, under extremely adverse weather conditions, without the loss of personnel or equipment, to demonstrate successfully the mobility of the Air Force and to establish new records for the Army Air Corps in aerial photography and long distance mass formation flying. The presentation of the decoration to General Arnold was made by the Hon. Harry H. Woodring, Secretary of War.

Barney M. Giles, major (captain) 20th Bombardment Squadron, Air Corps, U.S. Army.

James H. Patrick, second lieutenant, Air Corps Reserve, U.S. Army.

Donald E. Hamilton, Staff Sgt., 96th Bombardment Squadron, GHQ Air Force, U.S. Army.

Frank B. Connor, Corporal, 96th Bombardment Squadron, GHQ Air Force, U.S. Army.

For extraordinary achievement while participating in an aerial flight from Concord, N.H., to East Brewster, Mass., and return, on the night of February 9, 1936. Having been notified that seven Civilian Conservation Corps enrollees were stranded on an ice floe in Cape Cod Bay, Major Giles, accompanied by Lieut. Patrick, Sgt. Hamilton and Corp. Connor, took off in an airplane during the hours of darkness, under dangerous flying conditions due to weather, and successfully located the men, dropped a message to them, and reported their location, thereby being chiefly responsible for saving their lives.

Frank G. Irvin, Captain, Air Corps, United States Army.

John S. Griffith, Captain, Air Corps, United States Army.

For heroism while participating in an aerial flight from Wright Field, Ohio, to Indianapolis, Indiana, July 22, 1936. While making a carbon monoxide test flight of a new Army airplane at an altitude of 2,000 feet, the engine burst into flames and smoke. Captain Irvin, the pilot, and his co-pilot, Captain Griffith, without thought of themselves, directed the crew of five civilian observers to jump, and then by switching gas valves and using fire extinguishers succeeded in extinguishing the fire, thereby preventing not only possible loss of life but destruction to valuable Government property. The presentation of the D.F.C. to Captain Griffith was made on February 20th at March Field, Calif., by Brigadier General Delos C. Emmons, Commanding the 1st Wing, GHQ Air Force.

The presentation of the D.F.C. to Major Giles, Lieut. Patrick, Staff Sgt. Hamilton and Corporal Connor was made by Major General Frank M. Andrews, Commanding General, GHQ Air Force, during a formal review at Langley Field, Va., on April 27, 1937, which was participated in by officers, flying cadets and enlisted men of all the GHQ Air Force units stationed at that field.

Richard T. Aldworth, first lieutenant, U.S. Army, retired, then first lieutenant, Air Corps. For heroism while participating in an aerial flight from Mitchel Field, L.I., New York, to Langley Field, Hampton, Va., on December 12, 1926. While flying at an altitude of 1,000 feet over Rockaway Beach, L.I., New York, the engine in Lieut. Aldworth's airplane instantaneously and completely failed. Efforts to start the engine proving to no avail, and being fully aware of the danger to himself, Lieut. Aldworth, disregarding his own safety and mindful only of the safety of the crowds on the beach, displayed excellent judgment and great courage when he maneuvered his airplane to avoid the crowds on the beach, and crashed into the breakers offshore. His airplane turned over immediately with great force and left Lieut. Aldworth submerged below the surface, from which position he extricated himself and was assisted ashore.

In General Orders of the War Department of June 30, 1937, announcement was made of the award of the Distinguished Flying Cross to:

Frank A. Armstrong, Jr., first lieutenant, Air Corps, U.S. Army, for heroism and extraordinary achievement while participating in aerial flight, and to

James H. Wallace, first lieutenant, Air Corps U.S. Army, for heroism while participating in an aerial flight.

On November 20, 1935, Lieut. Armstrong was piloting an airplane with three passengers and a co-pilot from David, Republic of Panama, to Albrook Field, Canal Zone. While flying at an altitude of approximately 4,000 feet over jungle and mountainous terrain, the right engine of the airplane disintegrated. Realizing the possibility of the remaining motor quitting and with no landing area visible, Lieut. Armstrong signaled to the copilot and passengers to jump, a comparatively safe proceeding at that time. With the airplane thus lightened, and with the assistance of Lieut. Wallace, who chose to remain and assist the pilot, Lieut. Armstrong piloted the airplane to a safe landing on a distant field. The courage and coolness of these officers in this emergency undoubtedly resulted in saving the lives of the passengers, and by preventing a crash landing saved the airplane from destruction.

The presentation of the D.F.C. to Lieut. Wallace was made at Hamilton Field, Calif., on July 17, 1937, in the presence of the entire personnel of the 7th Bombardment Group and the 5th Air Base Squadron.

The Soldier's Medal

During the calendar year 1937, announcement was made in General Orders of the War Departme of the award of the Soldier's Medal to the per-

sonnel enumerated below:

Staff Sergeant Willie D. Norris, chief armorer Sergeant Wayne M. Musser, Armament Section, 20th Bomb. Squadron, GHQ Air Force, Langley Field, Va.

For heroism displayed at Langley Field, Va., August 31, 1936. These two enlisted men set and installed the time fuses on six large experimental flares, hung them from the bomb bay racks of an airplane, and withdrew the safety-ing pins from the flares. Hearing a noise diagnosed as the time fuse functioning, Staff Sgt. Norris and Sgt. Musser decided to unlatch the ticking flare and carry it to a place of safety. Sgt. Norris held the flashlight while Sgt. Musser unlatched the ticking flare and ran with it in his arms toward the flying field. He reached a point about 20 feet from the bomb bay when the flare exploded, shooting the burning flare back toward the airplane under the left wing near the fuselage, where the intense heat ignited the wing. The heroic and timely action of Sgt. Norris prevented the possible loss of human life and undoubtedly great destruction to valuable government property. The pilot of the airplane which caught fire sprained his ankle in his attempt to escape from the burning airplane, and lay dangercusly near the flames. Seeing his plight, Sgt. Musser assisted in carrying him to safety.

During January, before a review of all the Langley Field Air Base troops, Brigadier General Henry C. Pratt presented the decoration to the two above-named noncommissioned officers.

Joseph G. Moran, Staff Sgt., Hqrs. and Hqrs. Sqdn., GHQ Air Force, U.S. Army.

For heroism displayed at New York, N.Y., on September 9, 1935. Seeing an unknown man fall or jump into the East River from the 30th Street Pier, Sgt. Moran, with utter disregard of personal danger, fearlessly dived from the airplane which was beached about a city block distant, swam to his assistance and, with much difficulty and danger to himself, succeeded in keeping him afloat until sufficient help arrived to bring him safely to shore.

Howard N. Bossert, Private, 1st Class, 19th Pursuit Squadron, Air Corps, U.S. Army. For heroism displayed in assisting in saving the lives of three men from drowning at Haleiwa, Oahu, Territory of Hawaii, on February 15,1936. A boat in which two soldiers and a civilian were riding capsized in the rough and shark-infested waters about a mile from shore, placing them in imminent danger of drowning. While an attempt to rescue them by means of a small craft proved futile, due to the extremely strong current and high waves, Private Bossert and another soldier obtained a 14-foot open outboard motor boat and, at great danger to themselves and with much difficulty, succeeded in reaching the men and bringing them safely to shore.

Clyde E. Gilmore, Corporal, 44th Observation Squadron, Air Corps, U.S. Army. For heroism displayed at Albrook Field, Canal Zone, September 30, 1935. Observing a soldier, whose clothing was completely enveloped in flames caused by a sudden gasoline blaze in the hangar of the 44th Observation Squadron, running from the scene of the fire, Corporal Gilmore rushed after him, succeeded in throwing him to the ground, and removing his clothing. By his courage and coolness, Corporal Gilmore undoubtedly saved the life of this soldier.

Frederick D. Lynch, major, then Captain, Air Corps, U.S. Army.

Joseph F. Murray, Staff Sergeant, 1st Balloon Squadron, Air Corps, U.S. Army.

For heroism displayed near Cogar, Oklahoma, July 10, 1936. When a landing was being attempted after a free balloon flight from Fort Sill, Okla., the balloon exploded and burned, causing Captain Lynch, a passenger, to be thrown from the basket. Seeing the other members of the flight trapped in the basket, Captain Lynch, although suffering from slight burns, bruises and shock, disregarded the intense heat and hydrogen gas, plunged into the wreckage, rescued the pilot, Staff Sgt. Murray, who, although suffering untold pain from his own injuries, displayed exceptional courage and heroism by aiding Captain Lynch to extinguish the flames from the clothing and parachute worn by another passenger.

Marion Malcolm, 2nd Lieutenant, Air Reserve, U.S. Army. For heroism displayed at Lake St. Clair, Selfridge Field, Mt. Clemens, Mich., on March 3, 1937. Upon learning that a child had fallen through the ice on the lake about 50 yards from shore and was in grave danger of drowning, Lieut. Malcolm, disregarding his own personal safety, broke through the thin ice, swam to the child, and succeeded in bringing her safely to shore.

John Mekkers, Private, 88th Reconnaissance Squadron, Air Corps, U.S. Army.

Kenneth L. Nay, Private, 88th Reconnaissance Squadron, Air Corps, U.S. Army.

For heroism displayed during a night reconnaissance flight from Hamilton Field, Calif., to San Jose, Calif., September 21, 1936. When the pilot was unable to release and extend the landing gear of the airplane he called for assistance. Private Mekkers immediately left his cockpit in the rear of the airplane and succeeded in working his way over the fuselage to the pilot's cockpit, released the control valve and thus allowed the pilot to extend the landing gear, thereby saving the airplane from damage and possible injury to the three occupants. When the pilot called for assistance, Private Nay immediately left his cockpit in the nose of the airplane and started back along the top of the fuselage toward the pilot's cockpit to render the necessary assistance. While attempting this difficult and dangerous feat, Private Nay's foot came in contact with the left propeller, severing the foot just back of the toes. With great presence of mind Private Nay returned to his cockpit, placed a tourniquet around his ankle, and notified the pilot of his injury.

The Cheney Award

Major Frederick D. Lynch and Staff Sergeant Joseph L. Murray, Air Corps, were designated as the recipients of the Cheney Award for the year 1936, for bravery in extricating from a burning balloon two enlisted men who were trapped in the balloon basket. This award, made annually for an outstanding act of valor of extreme for-

titude or self-sacrifice in a humanitarian interest, performed in connection with aircraft, was presented to them at Bolling Field, D.C., on May 8th by General Malin Craig, Chief of Staff of the Army, and Acting Secretary of War, in an impressive ceremony in the presence of about 400 Bolling Field troops.

The Mackay Trophy

During the ceremonies on May 8th at Bolling Field, above mentioned, the Mackay Trophy, presented annually for the most meritoricus flight of the year, was received by six officers and three enlisted men, namely: Captain Richard E. Nugent, 1st Lieuts. Joseph A. Miller, Edwin G. Simenson, 2nd Lieuts. Burton W. Armstrong, William P. Ragsdale, Air Corps; 2nd Lieut. Herbert Morgan, Jr., Air Reserve; Technical Sgt. Gilbert W. Olson, Staff Sergeant Howard Miller and Corporal Frank Connor. These men, participating in a flight of three B-10 Bombardment airplanes during the Second Army Maneuvers, and led by Captain Nugent, took off from Langley Field, Va., for Allegan, Mich., slightly over 600 miles distant, and made a simulated attack on anti-aircraft installations. Enroute, dense haze and solid overcast were encountered, followed by thunder storms and heavy fog. The lead ship flew by instruments for more than 500 miles. In one area of the dense fog, the pilots of the wing ships, although in tight formation, were unable to see the navigation lights of the lead ship. They were then ordered to fly individually on a prescribed course and to reassemble in formation at a designated point on the line of flight. Each pilot brought his airplane to the appointed place, but the haze was so dense that even the landing lights of the airplanes were invisible beyond a few hundred yards. The assembly was effected only after circling for 15 minutes in imminent danger of collision. Captain Nugent then led his flight toward the objective, and on his order the Bombers glided out of the clouds over the target, and after the attack was effected, the flight proceeded through heavy rainstorms to Selfridge Field, Mich.

The Harmon Trophy

The 90th Attack Squadron, 3rd Attack Group, Barksdale Field, La., was on March 13th awarded the Harmon Trophy. This Trophy was presented by a group of Shreveport business men, in honor of the first commanding officer of Barksdale Field, Colonel Millard F. Harmon, with the stipulation that it be awarded annually to the organization at the field having the highest efficiency rating, taking into consideration the number of hours flown, average number of planes in commission per number of planes assigned, and the number of forced landings during the calendar year.

The Frank Luke Trophy
The Colombian Trophy

In a very impressive ceremony at Barksdale Field, La., on November 21st, before the assembled Third Attack and Twentieth Pursuit Groups, and some 15,000 spectators, Major General Frank M. Andrews, Commanding the GHQ Air Force, presented the Colombian Trophy to the Third Attack Group for having the lowest accident rate per thousand flying hours during the preceding year, and the Frank Luke Memorial Trophy to the 77th Pursuit Squadron for its excellent record in aerial gunnery practice for the year.

Commendation

By direction of the Secretary of War, a letter was sent to the Chief of the Air Corps, under date of February 25th, commending the entire Air Corps for the splendid showing made during the fiscal year 1936, when the rate of accidents occurring in the Air Corps reached the low point of .859 per thousand flying hours as compared with an average rate of 1.08 for the preceding five years and with a rate of 5.06 during the Fiscal Year 1922. The Secretary of War stated that, in his opinion, such an improvement could have been accomplished only through the loyalty and diligence of the officers and enlisted men and civilian employees of the Air Corps who, by painstaking effort, the display of excellent knowledge, and by intelligent cooperation with the civilian industry and other technical agencies of the government, have so advanced the science of aeronautics.

In a letter to Major General Frank M. Andrews commanding the GHQ Air Force, the Chief of Staff of the Army, General Malin Craig, commenting on the flight of the 96th Bombardment Squadron to Panama and return, extended his congratulations and stated that the flight demonstrated that our Army navigators are thoroughly capable of navigating airplanes over extensive stretches of water.

The Commanding Officer of the First Pursuit Group wrote a letter of appreciation and commendation to two citizens of Youngstown, Ohio, Messrs. P.C. Boyer and R.F. Thomas who, following the crash at the Bernard Airport at that city of 2nd Lieut. J.C. Ziler, Air Reserve, as a result of which the pilot was injured and the plane caught fire, promptly ran to the scene and extricated the imperiled airman from his perilous predicament. Although neither of these men was burned, the rescue was made at considerable risk, as the airplane contained three fuel tanks, each catching fire separately, and was also equipped with flares, which ignited during their rescue work. Their prompt action no doubt saved the life of the pilot.

The 8th Attack Squadron, Barksdale Field, La., received high commendation from Colonel Walter H. Frank, Commanding Officer of the Cold Weather Equipment Test Group, encamped at Selfridge Field, Mich., and Oscoda, Mich., in February, 1937, for its outstanding showing in operation, morale, airdrome discipline and flying discipline.

In a letter to Wright Field, Dayton, Ohio, Dr. A.T. McCormick, of the State Department of Health of Kentucky, expressed the appreciation of himself and the people of that State of the services rendered by the Air Corps in flood relief operations.

LONG DISTANCE FLIGHTS

Early in January, Colonel Follett Bradley, of the Hqrs. GHQ Air Force, Langley Field, Va., piloted a B-18 Bombardment plane from Randolph Field, Texas, to his home station in 5 hours and 40 minutes, establishing a record for elapsed time between these points. Colonel Bradley made an average speed of 244 miles per hour and at times a ground speed of 275 miles per hour was maintained.

February 11th saw the completion of the longest over-water navigation flight yet performed by a formation of land planes. The 96th Bombardment Squadron, 2nd Bombardment Group, GHQ Air Force, equipped with B-10B airplanes, made a flight from Langley Field, Va., to Albrook Field, Panama Canal Zone.

The Squadron took off from Langley Field on February 4th, but encountering a terrific snow storm at Charlotte, N.C., proceeded to Spartanburg, S.C., remained there overnight and proceeded to Miami, Fla., the following day. From Miami to Panama, high cloud formations forced the Squadron to fly above 4,000 feet, and at one time to go to 13,000 feet, flying over solid overcast. Homeward bound, the Langley airmen took off from Albrook Field on February 9th. Bad weather forced them to remain at Miami on February 10th, and they returned to their home station the following day.

On February 18th, fourteen airplanes from Albrook Field, Panama Canal Zone, took off on a flight to Guatemala City, Guatemala, via David, Panama; Managua, Nicaragua, and San Jose, Costa Rica. Several days were spent enroute.

Covering all of the three Wings of the GHQ Air Force in less than 18 hours' elapsed time, Major General Frank M. Andrews flew his Douglas Transport "Flag Ship" from March Field, Riverside, Calif., to Langley Field, Va., in 14 hours and 39 minutes actual flying time, landing at Langley Field at 2:34 a.m., February 26th. The southern route was followed, and he reached Barksdale Field, the station of the Third Wing, at 5:00 p.m.

Fifteen Martin Bombers of the 19th Bombardment Group, under the command of Lieut. Colonel Hubert R. Harmon, took off from March Field, Calif., on April 5th on an extended cross-country navigation flight. Stops were made at El Paso and Randolph Field, Texas, and New Orleans and Barksdale Field, La. During the five days of the cross-country flight, over 3,000 miles were covered.

Starting on April 5th, Air Corps personnel from France and Albrook Fields, Panama Canal Zone, flying in six B-10's, six P-12's and one C-27 Transport, and accompanied by Brigadier General George H. Brett in another B-10 plane, made a flight to Guatemala City, Guatemala, via David, Panama; San Jose, Costa Rica; Managua, Nicaragua, and San Salvador, Salvador. The return flight to the Panama Canal Zone was made on April 9th, thus ending a 2,000-mile trip through five Central American countries.

On a night formation non-stop flight during March, from Mitchel Field, New York, Flight A of the 99th Bombardment Squadron, commanded by 1st Lieut. Joseph Baylor, covered approximately 1200 miles in 9 hours, the course followed taking the flight over Pittsburgh, Pa.; Columbus, Ohio; Buffalo, N.Y.; Clifton Forge, Va.; Washington, D.C., and Philadelphia, Pa. Upon landing the airplanes of the flight still carried a sufficient supply of gasoline for an additional 350 miles of flying.

On May 5th, Major Barney M. Giles, pilot, with 1st Lieut. P.G. Miller, copilot, and crew, flew from March Field, Calif., to Langley Field, Va., non-stop, in 12 hours and 50 minutes. During the major portion of the flight, the B-17, which performed very satisfactorily throughout, was flown at an altitude of 14,000 feet.

On May 27th, one of the new B-17 Bombardment planes of the 2nd Bombardment Group, piloted by Major Caleb V. Haynes on a navigation flight, covered the distance from Kelly Field, Texas, to Langley Field, Va., in nine hours.

In a routine introductory cruise on May 16th in four B-17 Bombardment planes, led by Lieut. Colonel Robert Olds, Commanding Officer of the 2nd Bombardment Group, 15 States situated in the industrial heart of the nation were covered in 11 hours.

Air Corps officers and enlisted men from Albrook Field, Panama Canal Zone, under the command of Lieut. Colonel Benjamin G. Weir, made an extended flight to Randolph Field, Texas. Leaving Albrook Field on June 18th, and proceeding via Managua, Nicaragua; Guatemala City, Guatemala; Vera Cruz, Mexico, and Brownsville, Texas, Randolph Field was reached in the afternoon of June 20th. Overnight stops were made at Guatemala City and Brownsville.

Under the command of Captain F.B. Valentine, three B-10B Bombardment planes flew from Mitchel Field, N.Y., to San Juan, Porto Rico, and return Leaving Mitchel Field on June 24th, and flying mainly over the Atlantic Ocean, Miami, Fla., was reached in 7¼ hours, the distance being 1,000 nautical miles. After an over-night stay at Miami, the flight departed the next day for San Juan, and covered the distance of 956 nautical miles in 8 hours against moderate head winds. On June 27th, the flight departed from San Juan on the return journey along the course previously followed, Miami being reached in 6¾ hours, and Mitchel Field the following day in 7½ hours. The flying time between Mitchel Field to Porto Rico and return, involving a distance of approximately 4395 miles, totaled 29¾ hours.

On June 26th, four B-17 Bombardment planes of the 2nd Bombardment Group, Langley Field, under the command of Lieut. Colonel Robert Olds, made a mass flight to Miami, Fla. The return flight to Langley Field was made in five hours.

On the morning of September 10th, 21 A-17A Northrop Attack planes of the 17th Attack Group,

March Field, Calif., composed of Hqrs. Squadron of 3 planes, and three tactical squadrons of 6 planes each, carrying 42 officers and enlisted men and led by Lieut. Colonel John G. Colgan, took off on an extended unit navigation flight. Stops were made at Albuquerque, N.M.; Fort Leavenworth, Kans.; Selfridge Field, Mich.; Patterson Field, Ohio; Maxwell Field, Ala.; Barksdale Field, La.; El Paso, Texas, and return to March Field at noon on September 18th. The entire flight was so arranged as to provide training in the various types of problems required of Attack Aviation. Rendezvous problems as well as attack and navigation missions were flown. Another purpose of the flight was to familiarize personnel of the GHQ Air Force on the West Coast with the facilities and operation of other air bases throughout the country. Aside from several minor replacement of parts, no difficulties were encountered during the course of this flight.

The 20th Pursuit Group, Barksdale Field, La., led by Major Armin F. Herold, and comprising 27 single-seater Boeing fighters, took off at 6:30 a.m., September 12th on a routine training flight to Buffalo, N.Y., which was reached at 6:40 p.m., refueling stops being made at Memphis, Tenn., and Cincinnati, Ohio. At Buffalo, where the Group was the guest of the Curtiss-Wright Co., the Air Corps pilots remained overnight, departing the following day at 2:55 p.m., and arriving at Selfridge Field, Mich., an hour and 35 minutes later. Taking off from Selfridge Field on the homeward trip at 8:55 a.m., September 14th, the Group reached Barksdale Field shortly before midnight, refueling stops being made at Wright and Scott Fields and Memphis, Tenn.

During the course of a navigation flight from Langley Field, Va., on October 28th in a B-17 plane, Captain Hilbert W. Wittkop reached Barksdale Field, La., in 6 hours, hovered over that field for an hour, conducting bomb dropping practice, and then departed for Maxwell Field, Ala., landing thereat two hours and 45 minutes later. Departing from Maxwell Field the following day at 3:25 a.m., Captain Wittkop reached Langley Field in 3 hours and 50 minutes, and was forced to throttle back after leaving Spartanburg, S.C., so as not to reach Langley Field before daylight.

Three Bombardment planes of the 2nd Bombardment Group were flown non-stop from Langley Field to March Field, November 14-15, in 15 hours. The return flight was made via Randolph Field, Texas, in a total elapsed time of 13 hours and 15 minutes.

Accompanied by a regular combat crew, Captain Carl B. McDaniel, of the 96th Bombardment Squadron, accomplished a night flight from Langley Field to Barksdale Field and return on November 30th. No landing was made at Barksdale Field, and the total time of the flight was 12 hours and 10 minutes.

Major Alexander P. deSeversky, noted aircraft designer and manufacturer, on the occasion of the anniversary of the first flight of the Wright Brothers on December 17th, flew a Seversky Pursuit plane from Havana, Cuba, to Bolling Field, D.C., in an elapsed time of 4 hours, 50 minutes and 59 seconds, and covering a distance of over 1400 miles.

FLIGHTS - ERRANDS OF MERCY

Under adverse weather conditions, Captain Harrison G. Crocker, with 1st Lieut. Carl R. Storrie as copilot, made an emergency flight on January 1st from Maxwell Field, Ala., to Bolling Field, D.C., to bring to the Walter Reed General Hospital for treatment, Major Thomas L. Gore, Medical Corps, who was injured in an automobile accident. The new Douglas C-33 Transport, in which the flight was made, covered the distance of 750 miles in four hours.

Once again Army Air Corps personnel in Panama were called upon to perform an errand of mercy. A Government nurse in David, Panama, was in desperate need of an immediate operation. On January 19th, within 5½ hours after the Commanding Officer of Albrook Field was called upon for aid, the sick woman was in a hospital in Panama ready to undergo the operation. Two Keystone B-6 Bombers were flown to David, one of them being used as a hospital ship on the return journey, with a flight surgeon as one of the passengers.

FLIGHTS - MISCELLANEOUS

Students of the Advanced Flying School, Kelly Field, Texas, participating in the pre-graduation maintenance flight, taking an entirely new route and visiting universities in Georgia, Alabama and Louisiana, took off on February 3rd and returned to Kelly Field on February 11th.

Early in the year, complying with the request of the Chief Health Officer of the Panama Canal Department, a B-6 Keystone Bomber from Albrook Field, Panama, was utilized in dusting from a suitable apparatus installed in the plane a mixture of paris green and pulverized clay over inaccessible parts of Victoria Fill, which was found to be a breeding place for mosquitoes in large quantities. The dusting brought very effective results.

Twenty-two students of the Pursuit Section of the Advanced Flying School, Kelly Field, Texas, took off on April 1st on an individual navigation flight to Mission and Fort Ringgold, Tex. There was one forced landing due to engine trouble.

During the first week in April, the 7th Bombardment Group, Hamilton Field, Calif., participated in quite a number of flights. On April 6th, Army Day, the Air Base was thrown open to the public in an "Open House" celebration and featuring exhibitions of formation flying, aerial gunnery and bombing missions. On the ground were exhibits of the great number of activities so necessary in maintaining a fighting unit.

Afforded an opportunity by the National Broadcasting Co. to join its "Magic Key" program in preparation for Army Day, a short program was broadcast from one of the B-17 "Flying Fortresses" of the 2nd Bombardment Group, Langley Field, while it was flying over Washington, D.C., on Sunday, April 6th. The broadcast was coordinated from the N.B.C. studios in New York City, with Mr. John B. Kennedy, well known N.B.C. commentator, aboard the plane. In addition to the broadcast of an interview between General Brant, Commander of the Second Wing, GHQ Air Force, and Mr. Kennedy, a realistic demonstration was given of the manner in which the combat crew on a "Flying Fortress" goes into action.

On May 17th, 74 airplanes from the Advanced Flying School, Kelly Field, Texas, took off on the customary navigation training flight. The flight was commanded by Major R.D. Knapp, Director of Flying Training at this School. The purpose of the flight was to give the students their final navigation training flight, using all the navigational aids possible; to acquaint them with operations and the use of the Federal Airways; to further their instruction in maintenance of airplanes on field maneuvers, and to create interest among students of the various colleges visited as to the educational facilities offered at the Air Corps Training Center. Universities in the States of Oklahoma, Kansas, Missouri and Arkansas were visited by the advanced flying students.

The Army's new substratosphere plane, the Lockheed XC-35, made its initial performance flights at Wright Field, Ohio, on August 5th.

In October, Major Caleb V. Haynes and Curtis E. LeMay, accompanied by an official of the National Advisory Committee for Aeronautics, flew from Wright Field, Ohio, to Langley Field in a B-17 Bombardment plane in the remarkable time of one hour and 45 minutes.

Officers stationed at Wright Field accomplished an exceedingly fast flight in the Air Corps substratosphere plane on November 2nd. Taking off from Chicago, they passed over Chanute Field, Ill., at an altitude of 19,000 feet, and from there to Wright Field, when the timing of the flight was started, an altitude of between 19,000 and 21,000 feet was maintained, the distance of 220 miles being covered in 38 minutes, thus averaging a speed of close to 350 miles per hour. Due to the supercharged cabin feature of the airplane, no oxygen equipment or heavy clothing were necessary.

The largest Bombardment airplane thus far built for the Air Corps, the XB-15, left Seattle, Wash., December 2nd, for Dayton, Ohio, where it was due to undergo final tests.

MANEUVERS AND EXERCISES

GHQ Air Force

The GHQ Air Force, with the 63rd Coast Artillery (anti-aircraft) attached, concentrated in the Hamilton Field - March Field areas and conducted operations therein during the month of May. The primary purpose of the exercise was to test the full strength organization of the various units of the GHQ Air Force as set up in the tentative test tables of organization.

In rough figures, the men and airplanes engaged in this maneuver totaled 425 officers and flying cadets, 3,400 enlisted men and 260 airplanes. The period from May 1st to 9th was devoted to the concentration. The combat airplanes, manned by their crews, converged on their operating airdromes with great rapidity, most of them arriving at their destination within 48 hours after departing from their home stations. These units made daily flights during the remainder of the concentration period in order to familiarize themselves with the terrain over which they would be operating during the ensuing few weeks.

A Provisional Air Transport Squadron of 13 transport planes comprised the air transport component for the ground echelon. All men and supplies not transported by air or rail were moved to their maneuver stations by motor convoy.

Tactical operations began on May 10th and ended on May 21st. The defending force, the 1st Wing, was based at Muroc Dry Lake, Calif., while the various units of the attacking force, the Second Wing, were based at seven different airdromes. Muroc Dry Lake and vicinity was assumed to be the city of Los Angeles, with its airplane factories, docks, harbors and other facilities. This site was selected as the defended area because it offered the opportunity to conduct actual bombing and chemical operations.

Targets representing the facilities and installations of this metropolis were outlined with lime on the sands of the Lake, and it was at these objectives that the opposing Bombardment directed the force of its attacks. Additional bombardment targets were erected on Great Salt Lake, where a few of the bombardment attacks were directed.

The deconcentration period began on May 22nd and ended May 30th, and might be termed the "concentration in reverse." Units were moved to their home stations by the same means of transportation as were employed to concentrate them.

First Wing, GHQ Air Force

Under the general supervision of Brigadier General Delos C. Emmons, Commanding the 1st Wing, GHQ Air Force, March Field, Calif., the 19th Bombardment Group conducted one of the most successful minor joint exercises held between the Army and the Navy for many a year. The general purposes of the problem were to practice and determine the bombing accuracy at high altitudes against a fast moving towed target. The special purposes were to test and determine the present communications set-up and the relative merits of individual versus formation bombing, as well as the various bombing patterns best suited to such targets. The Commanding General was especially pleased with the splendid cooperation between the officers of both services.

Second Wing, GHQ Air Force

The functioning of the trim and speedy new

airplanes with which the GHQ Air Force is equipped was tested under winter conditions in the Selfridge Field, Mich., area from February 1st to 24th. Over 100 officers and 300 enlisted men participated in this project.

The Squadrons of the 8th Pursuit Group, Langley Field, Va., moved into the field at Virginia Beach, Va., April 12th, for a period of two weeks to participate in the field exercises of the Second Wing, GHQ Air Force.

For two weeks, beginning April 12th, the 2nd Bombardment Group, Langley Field, Va., under the command of Lieut. Colonel Robert Olds, was engaged in maneuvers at Rocky Mount, N.C.

The 18th Reconnaissance Squadron, Mitchel Field, N.Y., was attached to the 9th Bombardment Group from that station during the Second Wing concentration at Aberdeen Proving Ground, Md., where it served as "eyes" for the Group.

Panama Canal Department

For two weeks beginning March 14th, Pursuit personnel from Albrook Field, basing at Rio Hato, and Bombardment personnel from France Field, basing at Aguadulce, engaged in aerial gunnery and performed various types of missions, the Pursuit simulating Attack and in most cases supporting the Bombardment in their missions, except that on patrol missions the Pursuit sought out the supposedly friendly Observation planes and attacked them.

Hawaiian Department

During the latter part of January, the 50th Observation Squadron from Luke Field, and the 19th Pursuit Squadron from Wheeler Field cooperated in a series of exercises to determine the ability of Pursuit to operate against the concentrated fire power of a formation of aircraft of modern type.

In the period from April 12th to 25th, the 5th Composite Group, Luke Field, participated in the annual Hawaiian Department maneuvers in cooperation with the U.S. Navy.

Philippine Department

Air Corps organizations stationed in the Philippines participated in field exercises for a period of two weeks during the latter part of January, and which proved very successful. The 3rd Pursuit Squadron, of Clark Field, together with the 4th Composite Group Headquarters of Nichols Field, were based at the Del Carmen Sugar Field, while the 2nd Observation and 28th Bombardment Squadrons were encamped at Sugar Centrales on the Island of Luzon.

TRAINING

1st Wing, GHQ Air Force

On four consecutive Saturdays during the months of February and March, the 7th Bombardment Group at Hamilton Field, Calif., conducted very interesting and instructive tactical operations in order to test the efficiency of the Group as a whole. These operations included formation flying, navigation problems, bombing and attack missions, and bombing missions at a high altitude.

The 17th Attack Group departed from its home station, March Field, Calif., on October 27th, for its annual fall maneuvers for a ten-day period. The Group operated with its full strength of 51 officers and 254 enlisted men, the equipment consisting of 32 Attack airplanes.

The 19th Bombardment Group, March Field, Calif., completed on December 21st the second phase of intensive training, devoted primarily to the airplane commander and his crew, by conducting bombing practice over the Mojave Desert. Bombs of various sizes, ranging from 600 to 2,000 pounds, were employed in this practice.

Second Wing, GHQ Air Force

The 17th Pursuit Squadron, Selfridge Field, Mich., spent the period from March 15th to 23rd, inclusive, in aerial gunnery practice at Camp Skeel, Oscoda, Mich.

During the period between June 24th and July 8th, the 33rd, 35th and 36th Pursuit Squadrons and the 37th Attack Squadron, 8th Pursuit Group, of Langley Field, Va., including 45 officers and 332 enlisted men, with equipment comprising one B-10B Bombardment, 37 PB-2A Pursuit and 6 A-17 Attack airplanes, were encamped at the Virginia National Guard Airport, Virginia Beach, Va., in order to conduct aerial gunnery and combat exercises.

The 1st Bombardment Squadron, commanded by Major Claude Duncan, and the 31st Bombardment Squadron from Hamilton Field, Calif., commanded by Major James Taylor, departed for their home stations on July 12th, after a week of intensive training on stationary and moving targets at Langley Field, Va. The officers of the 31st Squadron were ferried to Langley Field by transport, and were furnished enlisted crews and airplanes by the 2nd Bombardment Group.

From July 1st to 24th, the 94th Pursuit Squadron, Selfridge Field, Mich., was engaged in aerial gunnery practice at Camp Skeel, Oscoda, Mich., during the course of which a new method of firing - mass firing on ground targets of three, six and twelve aircraft, all firing simultaneously - was conducted.

The 8th Pursuit Group, of Langley Field, was engaged in maneuvers at Virginia Beach, Va., from July 26th to August 6th, during which ground and aerial gunnery was conducted. This completed the third such encampment of the Group during the year at the Virginia National Guard Airport.

On August 1st and 2nd, the 37th Attack Squadron, Langley Field, Va., worked cooperative missions with the Chemical Warfare School at Edgewood Arsenal, Md., involving the laying of smoke screens.

The 97th Observation Squadron (Corps and Army) left Mitchel Field, N.Y., on February 17th for a three-day trip to Florida and Alabama, for the purpose of training in unit and individual navigation, familiarization with terrain and

airports and maintenance of airplanes away from the home field. Personnel participating were 4 officers, 3 flying cadets and 7 enlisted men, utilizing 7 O-46 Observation planes. The total distance covered was 2118 miles, with a flying time of 14 hours and 40 minutes.

The 20th Bombardment Squadron, 2nd Bombardment Group, completed a week of field training, September 13-18, at Virginia Beach, Va.

The 49th Bombardment Squadron, Langley Field, returned to its home station on September 18th, after completing a very successful week in the field at Virginia Beach.

During the first two weeks in October, the 2nd Bombardment Group, Langley Field, was engaged in a comprehensive and accurate test of the range and efficiency of the B-17 Bombardment plane under different load and speed requirements, with most gratifying results.

The 37th Attack Squadron, Langley Field, on November 5th, conducted an experimental instrument training flight, when the pilots of three airplanes, flying under the hood, at two, four and six thousand feet altitude, respectively, were directed to Middletown, Pa., by radio control from a fourth airplane which performed the navigating and directing. The experiment proved very successful.

The 21st Reconnaissance Squadron, Mitchel Field, N.Y., was one of the participating units in the Army and Navy joint minor exercises held off the waters of Chesapeake Bay during the week beginning November 1st.

The 37th Attack Squadron, Langley Field, Va., flew a cooperative mission with the Chemical Warfare School at Edgewood Arsenal, Md., on November 18th.

Third Wing, GHQ Air Force

The 20th Pursuit Group, Barksdale Field, La., comprising the 55th, 77th and 79th Pursuit Squadrons, conducted high altitude aerial gunnery practice at Fort Crockett, Texas, between March 24th and April 20th, each organization being encamped at that post for the period of one week.

The 55th Pursuit Squadron, Barksdale Field, La., participated in maneuvers in the Waco-San Antonio-Houston area, in Texas, and after two weeks of vigorous field exercises returned to the home base on October 29th.

The 77th Pursuit Squadron, Barksdale Field, La., played an active part in the Third Wing Maneuvers, October 16-29, during which time it was based at Fort Crockett, Texas.

Nineteen Attack planes from the Third Wing, GHQ Air Force, Barksdale Field, La., under the command of Major P.L. Williams, arrived at Kelly Field, Texas, on November 7th, and took off the next day for Camp Bullis, where the airmen carried out a training mission in connection with the test division in the field in that locality. On the afternoon of November 8th, another flight of 19 Attack planes from Barksdale Field, under the command of Major A.C. Strickland, arrived at Camp Bullis to carry out a similar mission.

Hawaiian Department

During the month of January, the units of the 5th Composite Group, Luke Field, achieved substantial progress towards the completion of their annual training program. Emphasis was placed on navigation and aerial photography in the Observation (Reconnaissance) Squadrons, while each of the Bombardment squadrons completed one of their periodical tours of the Islands.

During the period from July 6th to 19th, the 23rd Bombardment Squadron, Luke Field, was engaged in aerial gunnery, ground machine gunnery and fired the pistol course.

The 50th Observation Squadron, Luke Field, with 7 airplanes of various types, took off on July 12th for a brief period of tactical training at Morse Field, Island of Hawaii.

From July 26th to August 7th, the 72nd Bombardment Squadron, Luke Field, was engaged in aerial gunnery practice at Bellows Field.

In the period from September 2nd to 15th, the 50th Observation Squadron, Luke Field, was engaged in annual training at the Waimanalo Military Reservation, during which it completed its ground small arms and machine gun firing.

The 4th Observation Squadron, Luke Field, returned to its home station on November 12th, after spending a week of field training at South Cape, Island of Hawaii. A total of 6 Air Corps officers, one Medical officer and 30 enlisted men participated.

The 72nd Bombardment Squadron, Luke Field, sent four Keystone Bombardment planes to Hilo, Island of Hawaii, on December 10th, the purpose of the flight being routine navigation training and to acquaint new officers of the Squadron with outlying fields.

During the month of November, the 4th Observation Squadron, Luke Field, completed its most extensive training period of the year. Over 200 hours were flown by eleven pilots.

The 72nd Bombardment Squadron, Luke Field, was selected as the highest rating squadron in the 5th Composite Group for the training year 1937, and was awarded the Hawaiian Department streamer to be carried on its guidon.

Air Corps Training Center

Statistics released by the Air Corps Training Center disclosed that from the period October 1, 1931, to March, 1937, inclusive, a total of 117,319 hours of flying instruction was given, during which time there was but one accident - a collision in the air of two planes, causing the death of three men. Other than that, no accidents causing even serious injury during student instruction have occurred. This shows

an average of 39,106 hours per fatality on the primary stage as against 12,000 hours per fatality in the service at large.

The Bombardment Section of the Advanced Flying School, Kelly Field, Texas, was eliminated in order to adjust training methods to the changes in military tactical flying which have arisen as a result of the development of the new Bombardment planes.

In April, 22 students of the Observation Section of the Advanced Flying School began their course in the observation of artillery fire at Camp Stanley, Texas. The ground course was conducted by Captain R.E. Randall, instructor, and lasted for 24 recitation hours. This was followed by simulated artillery fire on the Kelly Field miniature range. In this phase of the training each student had a minimum of ten problems to familiarize him with the procedure of artillery adjustment. Two-way radio communication was used.

Air Corps Tactical School

The 1936-1937 Class at the Air Corps Tactical School, Maxwell Field, Ala., completed one week of maneuvers on May 2nd at the Bombing and Gunnery Base at Valparaiso, Fla.

Students of the Air Corps Tactical School visited the Infantry School at Fort Benning, Ga., on October 19th, and witnessed tactical demonstrations by the Infantry troops stationed thereat. On November 16th they made another visit to the Infantry School to witness a demonstration of what may be expected in artillery fire from the division artillery. Prior to these visits, the new refresher class at the Infantry School, Fort Benning, Ga., paid a visit to Maxwell Field on November 5th, and were conducted on a tour of inspection through the Air Corps Tactical School. They witnessed a flying schedule of the students of the Tactical School and were given several illustrated lectures.

Students of the Air Corps Tactical School paid their annual fall visit to the Valparaiso Bombing and Gunnery Base to conduct two days of machine gun firing. For this purpose the School was divided into two sections, the first section conducting their firing the week end of October 14th, and the second section the week end of October 21st.

Air Corps Reserve

From July 18th to 31st, the 316th Observation Squadron (Reserve) was stationed at Moffett Field, Calif., and utilizing their own planes, BT-9's and PT-3's, participated in an intensive program of flying, featuring radio missions and gunnery on ground targets.

July 31, 1937, marked the closing of one of the most successful and instructive 14-day active duty camps for Air Reserve officers at Schoen Field, Fort Benjamin Harrison, Ind. The Reserve officers participated in formation, instrument and night flying in the mornings, and devoted the afternoons to class room work and lectures.

From August 1st to 6th, the 367th Observation Squadron (Reserve) performed a full schedule of tactical flying at Moffett Field, Calif., and then departed in order to participate in the 4th Army Maneuvers, at Fort Lewis, Wash. These maneuvers constituted the largest mobilization in the Pacific Northwest since World War days. The 91st Observation Squadron, Air Corps, at Fort Lewis, was one of the participating units.

During the month of August, the 96th Bombardment Squadron, Langley Field, Va., conducted a 14-day training camp for Air Reserve officers.

West Point Cadets

At Mitchel Field, N.Y., during the period from June 12th to July 3rd, cadets of the senior class of the U.S. Military Academy received a practical test of the way the United States employs its air forces. The cadets manifested a keen interest in military aviation. The mornings were devoted to the various phases of flying, and the afternoons to lectures and interesting excursions to the various activities about the post. Each cadet received approximately seven hours of flying. The class was divided into three sections, each section being stationed at Mitchel Field for the period of a week.

On August 20th, the 1938 class of the U.S. Military Academy paid their annual fall visit to the 2nd Bombardment Group at Langley Field. The Group Commander gave the cadets a short talk on the performances, mission and the future of four-engine airplanes in the defense of the nation. The cadets displayed keen interest in the B-17 "Flying Fortresses," inspecting them thoroughly and witnessing the loading thereon of various sized bombs. Later they were afforded a precise demonstration of bombing on a typical target located on Plum Tree Island.

DEMONSTRATIONS AND REVIEWS

Planes and personnel from Albrook and France Fields, Panama Canal Zone, on January 23rd, passed in review to honor Major General H.W. Butner, Panama Canal Department Commander, who was sailing for the United States.

An aerial review was flown at Barksdale Field, La., on March 13th, in honor of Brigadier Gen. Gerald C. Brant, commanding the 3rd Wing, on the occasion of his departure for Langley Field to assume command of the 2nd Wing, GHQ Air Force.

The 90th Attack Squadron, Barksdale Field, La., dispatched six A-17 Attack planes to Fort Benning, Ga., on April 1st to participate in a chemical warfare demonstration at the Infantry School for the instruction of its regular class of students.

Vice President John N. Garner and Mrs. Garner, along with 32 senators and 74 representatives and their wives, and other government officials were in a visiting delegation at Langley Field, Va., on April 24th. A series of maneuvers was staged for the visitors and participated in by the 27th Pursuit Squadron of Selfridge Field, the 9th Bombardment Group from Mitchel Field, and the 8th Pursuit and 2nd Bombardment Groups of Langley Field. Machine gun firing with tracer bullets at ground targets by the Pursuit personnel, bomb dropping by the Bombardment personnel, and the laying of a smoke screen by the 37th Attack Squadron, Langley Field, featured the aerial demonstration.

Six planes from Albrook and France Fields, Panama Canal Zone, flew in a review on April 20th in honor of Major General David L. Stone,

the new commander of the Panama Canal Department.

Reserve officers attending the National Convention of the Reserve Officers Association at San Antonio, Texas, were given a demonstration of night flying at Kelly Field on the night of May 23rd.

Students of the Army War College visited the Second Bombardment Group, GHQ Air Force, Langley Field, Va., on June 15th, and after witnessing the installation of various sizes of bombs in the B-17 Bombardment planes, were spectators at a demonstration of bombing by this Group and a machine gunnery demonstration by the squadrons of the 8th Pursuit Group.

On June 15th, the 8th Pursuit Group, Langley Field, in its demonstration of machine gunnery before students of the Army War College, used tracer ammunition to enable the visitors actually to see the curtain of fire laid down on the targets.

During the National Air Races at Cleveland, Ohio, the first week in September, the Army Air Corps participated to the extent of staging formation flights of B-17 Bombardment planes; maneuvers by a squadron of PB-2A's from Langley Field, led by Captain Ned Schramm, and original and entertaining acrobatics by three pilots from Maxwell Field, Ala., termed the "Sky Larks," who proved worthy successors to the "Three Men on a Flying Trapeze."

On August 20th, the troops of the Hawaiian Department paraded in honor of Mr. Henry Morganthau, Secretary of the Treasury. In spite of the extremely rough air, an impressive showing was made by the Air Corps units, which turned out every available man for the ceremony.

Honoring Major General Hugh A. Drum, outgoing Commanding General of the Hawaiian Department, Air Corps troops in that Department, in August, 1937, participated in the greatest review held since the World War, both ground and aerial. The aerial review was participated in by two C-33 Transports as the Wing Headquarters Flight, Martin Bombers from Luke Field and Pursuit and Attack planes from Wheeler Field.

The highlight of the National American Legion Convention, held in New York City, saw the GHQ Air Force in an aerial demonstration on September 21st, involving the Second and Third Wings of Langley Field and Barksdale Field, respectively. Composing the Second Wing were the 2nd Bombardment Group of 4 B-17 Bombers; the 8th Pursuit Group, consisting of 18 PB-2 Pursuit Bombers; the 1st Pursuit Group from Selfridge Field, Mich., composed of 18 P-26 Pursuit planes, and the 9th Bombardment Group from Mitchel Field, N.Y., equipped with B-10 Bombers. The Third Wing was represented by the 13th and 90th Attack Squadrons of the 3rd Attack Group, each equipped with 18 A-17 Attack planes. Flying demonstrations were staged over the monster American Legion parade, one shortly before noon, another in the late afternoon, and a forty-minute flight at night at 10:35 p.m.

On the occasion of the visit of the President of the United States at Fort Lewis, Wash., on October 1st, all ground troops of this post were turned out on the main highway, and a review formation was flown by the 91st Observation Squadron.

A flight of B-12 Bombardment planes of the 5th Composite Group, Luke Field, T.H., greeted Major General O. Westover on the occasion of his arrival on October 7th in the Hawaiian Department to inspect Air Corps activities.

Six Douglas B-18 Bombardment planes from Hamilton Field, Calif., passed in an aerial review before Major General Westover, Chief of the Air Corps, on the morning of October 18th, upon his arrival in San Francisco Bay following an inspection of Air Corps activities in Hawaii.

In commemoration of the first flight of the Wright Brothers at Kitty Hawk, N.C., December 17, 1903, all Army Air Corps stations were directed to place all available airplanes in the air on December 17th at the hour the first flight was made, weather permitting.

FLOOD RELIEF OPERATIONS

Personnel and planes of the GHQ Air Force played an important role in the rescue and relief of distressed persons in the flooded Ohio River Valley in January. Aerial photographers mapped the entire Ohio River Valley in the flood area from Portsmouth to its mouth at Cairo, Ill., including tributaries. Photographs were taken of levees and other parts of the flood region for the use of Army Engineers.

From January 27th to February 6th, Captain H.K. Baisley, accompanied by Master Sergeant Andrew E. Matos, piloted a Fairchild C-8 photographic airplane over the flooded Ohio River valley district, covering over 3900 square miles in 13 separate flights, totaling 41 hours, "shooting" vertical and oblique views of the flood crest in order to determine the area covered by the flood and the high water marks from Beaver, Pa., to Cairo, Ill.

Captain Paul T. Cullen, flying a similar plane, with a crew from Mitchel Field, was on the same mission, and the Army airmen worked almost unceasingly to accomplish their mission. Flying at from 8,000 to 10,000 feet altitude, views were taken with excellent results, despite rain, snow and overcast skies.

Airplanes of the 35th Division, Middouri National Guard, for a period of ten days from January 23rd, were flown in flood relief operations in the Ohio River Valley. About 110 hours were flown in patrolling the levees, in reconnaissance and in aerial photographic work.

Army airmen from Brooks Field, Texas, flying a Transport, an Observation and a Photographic plane, participated in relief work in the flooded Ohio River Valley. One plane was sent to Louisville, Ky., with serum for the flood sufferers. The photographic plane was engaged in work in the vicinity of Vicksburg, Miss. Over 120 hours were flown by the Brooks Field planes in this relief work.

The freshet waters from the hills of Maryland and Virginia and the tide in the Potomac River combined to flood Bolling Field, D.C., on April 27th, forcing the Army to evacuate personnel and equipment. This flood was the third experienced by Bolling Field since 1933.

Flood relief work in the inundated Central Valley, Calif., was conducted December 12th and 13th by the 88th Reconnaissance Squadron of Hamilton Field, Calif. Food and medical supplies were dropped to persons marooned by the

flood, and photographs were taken of the flooded area and of breaks in the flood control system.

DELIVERY OF AIRPLANES

The Second Bombardment Group, Langley Field, received on March 4th the first YlB-17 airplane delivered to a tactical unit of the Air Corps. The officers and men of the Group were drawn up in parade formation to welcome the first so called "Flying Fortress." The second airplane of this type was delivered to the Group on March 11th.

The first of the newest defense weapon of the Army Air Corps, the Douglas B-18 Bombardment plane, 177 of which were purchased by the Air Corps for the use of the GHQ Air Force, arrived at Hamilton Field, Calif., in the middle of July.

The Advanced Flying School, Kelly Field, Tex., gained nine additional Attack planes on August 2nd; six being ferried from Barksdale Field and three from Maxwell Field. These airplanes were to be used to augment the equipment of the Attack Section of the School.

During the month of August, a total of eight BT-9 airplanes were ferried from the West Coast to the Advanced Flying School, Kelly Field.

Roaring eastward from California in the closing days of October, five B-18 Bombardment planes arrived at Mitchel Field, N.Y., for assignment to the 18th Reconnaissance Squadron.

Four North American BT-9 airplanes were ferried to Langley Field, Va., from the factory at Inglewood, Calif., for the use of the 2nd Bombardment Group as messenger and utility planes.

The first of 77 new Seversky P-35 Pursuit airplanes to be assigned to the First Pursuit Group arrived at Selfridge Field, Mich., the last week in December.

CHANGES IN ORGANIZATIONS AND STATIONS

Effective January 1st, the 20th Photo Section was transferred from Randolph Field, Texas, to Bolling Field, D.C., where the men from that organization and the Bolling Field Photographic Department were incorporated to function as a unit.

On January 31, 1937, a number of changes were effected in Air Corps organizations. The 21st Photo Section at Scott Field, Ill.; the Headquarters and Headquarters Squadron, 12th Observation Group, Brooks Field, Texas, and the 15th Photo Section at Fort Lewis, Wash., were rendered inactive, and the personnel thereof were transferred to other organizations.

Flights D and E of the 16th Observation Squadron were demobilized, the personnel, equipment and records in the case of the first named unit being incorporated in the 1st Observation Squadron, organized from the 9th Airship Squadron at Scott Field and transferred to Marshall Field, Fort Riley, Kansas, and in the case of Flight "E," incorporated in Flight "C" of the 12th Observation Squadron, transferred from Brooks Field, Texas, to Fort Sill, Okla.

The 9th Airship Squadron, Scott Field, was redesignated as the 1st Observation Squadron and transferred to Marshall Field, Fort Riley, Kansas.

Flight A, 16th Observation Squadron, Langley Field, without personnel or equipment, was transferred to Pope Field, Fort Bragg, N.C.

Headquarters 16th Observation Squadron was rendered active, with station at Fort Bragg.

The 12th Observation Squadron, Brooks Field, Texas, less Flight "C," was transferred to Fort Knox, Ky. Flight "C" without personnel or equipment was transferred to Fort Sill, Okla.

The 1st Photo Section, Brooks Field, was redesignated as the 3rd Observation Squadron and transferred to Langley Field.

The 19th Airship Squadron, Moffett Field, Calif., was redesignated and consolidated with the 3rd Balloon Squadron, heretofore inactive, as an active unit, with station at Fort Lewis, Wash.

The 82nd Observation Squadron was constituted as an active unit at Moffett Field, Calif.

The Headquarters of the 18th Composite Wing, Fort Shafter, T.H., with one officer, 11 enlisted men and three airplanes, was moved to the new Hickam Field, where quarters were established in one of the completed hangars.

On October 1st, the 21st Reconnaissance Squadron, Langley Field, was relieved from attachment to the 2nd Bombardment Group and attached to the Second Wing, GHQ Air Force.

NAMING OF NEW FIELDS

The Bombing and Gunnery Base at Valparaiso, Fla., was redesignated "Eglin Field," in memory of Lieut. Colonel Frederick I. Eglin, who was killed in an airplane accident near Fort McClellan, Ala., January 1, 1937.

Announcement was made by the Secretary of War on November 17th that the new northwest army base at Tacoma, Wash., was designated as "McChord Field" in memory of Colonel William C. McChord, Air Corps, who was killed in an airplane accident near Maidens, Va., on August 16, 1937.

The newly established branch of the Air Corps Technical School at Denver, Colo., was named "Lowry Field," in memory of Lieut. Francis B. Lowry, a resident of Denver, who was killed in action in France during the World War.

LIGHTER-THAN-AIR ACTIVITIES

July 20th marked the first flight in many years of a captive balloon at Fort Lewis, Wash. The operation was conducted by the newly constituted 3rd Balloon Squadron, which arrived at Fort Lewis from Moffett Field, Calif.

During the month of July, the C-6 motorized observation balloon was delivered to the 1st Balloon Squadron, Fort Sill, Okla., where it was erected and flight-tested. The new balloon uses helium, and its motorized car is powered with a 90 h.p. Lambert motor and can be flown at 40 miles per hour.

ARMY AIR CORPS EXHIBIT

At the Aviation Show in New York City early in the year, the Army Air Corps was represented by an exhibit of both old and new aeronautical equipment, demonstrating the progress in aviation through the years. A case of aircraft models made to 1/40 scale of various types of planes, from the war-time "Jenny" and DH to the latest Boeing Bomber, attracted considerable attention. Motion pictures depicted aviation de-

velopment and historical progress from the time of the first flight of the Wright Brothers.

SCHOOL ACTIVITIES

Air Corps Training Center

During the calendar year 1937, a total of 569 students (122 officers of the Regular Army and 447 flying cadets) entered the Primary Flying School, Randolph Field, Texas, for heavier-than-air flying training. Graduating during the year from the Advanced Flying School, Kelly Field, Texas, as Airplane Pilots, were 184 students (53 officers and 131 Flying Cadets).

Ten officers and 56 Flying Cadets graduated on February 19th from the Primary Flying School, Randolph Field, Texas, and were transferred to Kelly Field for advanced flying training.

Graduating from the Advanced Flying School, Kelly Field, on February 17th, were 33 students, including 3 officers and 30 Flying Cadets.

Kelly Field played host to the band and drill company of the John Tarleton Agricultural College, of Tarleton Station, Texas, on April 21st. They came to San Antonio to participate in the competition of school military organizations during the Fiesta of San Jacinto.

A total of 62 students (10 officers and 52 Flying Cadets) graduated from the Advanced Flying School, Kelly Field, on June 9th.

Class 29-B of the Advanced Flying School graduated on October 6th, the class comprising 40 officers of the Regular Army and 49 Flying Cadets.

Air Corps Technical School

A total of 803 enlisted men graduated during the calendar year 1937 from the Air Corps Technical School at Chanute Field, Rantoul, Ill., viz: 163 as Airplane Mechanics, 52 Armorers, 30 Machinists, 30 Parachute Riggers, 76 Aerial Photographers, 270 Radio Repairmen and Operators, 37 Welders, 35 Clerks, 25 Bomb Sight Specialists, 20 Carburetor and Ignition Specialists, 22 Electrical Specialists, 26 Instrument Specialists and 17 Propeller Specialists.

Officers graduating from the various courses at the Technical School totaled 76, of which 9 completed the Armament course, 10 Communications, 14 Airplane Maintenance and 3 Aerial Photography.

Early in March, a total of 32 Air Corps officers were detailed to pursue the various courses of instruction at the Technical School, commencing in the fall of the year, namely, 10 in Maintenance Engineering, 9 in Communications, 10 in Armament and 3 in Aerial Photography.

Graduation exercises for the officers' classes of the Air Corps Technical School were held on June 30th at the Officers' Club.

Air Corps Tactical School

Graduation exercises at the Air Corps Tactical School, Maxwell Field, Ala., were held on June 1st, the class comprising 53 Air Corps officers and 11 officers from other branches of the service.

Meteorological Schools

Meteorological service for the Army, heretofore the responsibility of the Signal Corps, U.S. Army, was on July 1, 1937, transferred to the branches of the Army utilizing this service, including the Air Corps, the Field Artillery, Coast Artillery Corps, Ordnance Department and the Chemical Warfare Service.

At Maxwell Field, Ala., a Post Signal School was started on July 8th to train enlisted men in radio and meteorological work.

Effective July 1, 1937, a Weather Department, under the supervision of 1st Lieut. Floyd B. Wood, Air Corps, was added to the list of activities at Bolling Field, D.C., made up chiefly of the trained and experienced men whose duties were previously performed with the Meteorological Department of the Signal Corps. This detachment was to be supplemented by additional men from the Air Corps.

The meteorological station, formerly located at Fort Sam Houston, Texas, was transferred on July 1st to Kelly Field, Texas, and placed under the supervision of Lieut. Elmo Mathews, Air Corps. A new office and laboratory, adjoining the Post Operations Office, was constructed for this vitally important activity.

The 1st Weather Squadron was organized on July 1, 1937, for the purpose of furnishing an adequate weather service to Air Corps units which may be located either permanently or temporarily in the Pacific Coast region.

The Air Corps Weather School at Patterson Field, Fairfield, Ohio, was opened on September 1st with an enrollment of 25 students. The purpose of the school is to teach the students the science of weather with a view to having men trained in meteorological work available at Air Corps Base Weather Stations.

Navigation Schools

The 9th Group Navigation School at Mitchel Field, N.Y., resumed activities on April 5th with a new class of four student officers.

The 5th Composite Group, Luke Field, T.H., organized a navigation school for the benefit of the 18th Composite Wing, to continue during the months of July, August and September, the subjects taught covering all phases of dead reckoning and celestial navigation.

Certificates of proficiency in dead reckoning and celestial navigation were presented to a group of eight officers of the 9th Bombardment Group, Mitchel Field, N.Y., on December 10th.

Air Corps Engineering School

The annual commencement exercises of the Air Corps Engineering School were held at the Wright Field auditorium on June 30th. Brigadier General A.W. Robins, Chief of the Materiel Division, delivered the graduation address and presented graduation certificates to ten Air Corps officers.

Command and General Staff School

Of the total of 237 officers who graduated from the Command and General Staff School, Fort Leavenworth, Kansas, on June 21, 1937, 38 were members of the Air Corps.

Army Industrial College

Ten Air Corps officers were included among the 95 students graduating from the Army Industrial College, Washington, D.C., on June 23rd.

School of Aviation Medicine

Five officers of the Medical Corps, U.S.Army, and one Medical Reserve officer, who pursued the course of instruction at the School of Aviation Medicine, Randolph Field, Texas, graduated on March 31, 1937, as Flight Surgeons.

Another routine course of instruction to qualify medical officers for duty as Flight

Surgeons was commenced at the School of Aviation Medicine, Randolph Field, on July 15th, with 11 students enrolled. These students graduated on November 13th as Flight Surgeons.

Aviation Ordnance

A School of Aviation Ordnance was started at Langley Field, Va., with Captain Edward P. Mechling, Ordnance Dept., as Director, for the purpose of instructing Air Corps enlisted men in subjects dealing directly with aviation ordnance, such as theoretical and practical training in the storage of bombs, fuzes, pyrotechnics, small arms ammunition and machine guns. Three sessions are to be held each year, beginning in October, January and March.

Air Base Technical School

On July 1st, the Air Base Technical School at Langley Field, Va., opened its doors with a class of 15 men, an increment of 15 additional men being added every 15 days, and two months being allotted each class for the completion of the course, same covering basic subjects, such as shop mathematics, mechanical drawing, blueprint reading, elements of electricity, elements of metal work and radio code, so as to prepare men taking the course for the Chanute Field entrance examination.

School for Instrument Landing Training

Three officers and six enlisted men reported at Wright Field, Dayton, Ohio, October 4th, to receive instruction in the standard Air Corps instrument landing system. Classes for officers extend over a two-week period, with three officers to a class. Those for enlisted men extend over a period of one month, with six men to a class.

AERIAL PHOTOGRAPHIC ACTIVITIES

First Lieut. Charles F. Densford, pilot, accompanied by Staff Sgt. Herman L. Chestnutt, photographer, took off from Kelly Field, Texas, April 15th, to obtain aerial photographs of construction progress on the Conchos Dam in New Mexico for the use of officers of the Corps of Engineers engaged on this project. In a period of ten days the airmen spent nearly 26 hours in the air making vertical and oblique photographs and movie films.

Completing a 1380-square mile project of mosaic photography for the U.S. Geological Survey, 1st Lieut. Paul Hanley, pilot, with Tech. Sgt. Wm. M. Brees, photographer, and Corp. Victor Woodward, mechanic, returned to March Field on September 29th. Work on this project was started on September 9th, the bases of operation being at West Yellowstone; Boise, Idaho; and Eugene, Wash. Equipment utilized were a Fairchild C-8 photographic plane and a Fairchild K-3B camera. A total flying time of 61 hours was required for this photographic project.

NEW CONSTRUCTION AT AIR CORPS STATIONS

New hangars at Lawson Field, Fort Benning, Ga., were dedicated on March 14th before a crowd of 3,000 persons. A varied program of events was staged, including a demonstration of light and medium tanks. An Army airplane performed various types of observation missions, including two-way radio and flying under the hood. There was also a ground exhibition of Infantry, Artillery and Air Corps materiel.

Announcement was made by the Secretary of War on June 8th that contracts had been let for over half of the work required to complete the new Air Corps depot at Sacramento, Calif., to replace the Rockwell Air Depot.

The month of July saw the completion of plans for the installation at Selfridge Field, Mich., of a new and modern radio transmitting station, together with a new radio range and traffic control system. This range sets up four invisible beams used by the pilots at this field in instrument flying training.

On June 18th, Patterson Field, Fairfield, O., received an elaborate gift in the form of a magnificent swimming pool, which is located directly in front of the new Officers' Club. This pool was the gift of Mrs. F.G. Carnell, in memory of her son, Frank Stuart Patterson, one of the early Army test pilots, who was killed near the field which now bears his name.

A new and elaborate swimming pool, located at the Officers' Club, Mitchel Field, N.Y., was formally opened to officers, their families and guests, on the evening of June 17th by Colonel Walter H. Frank, Air Base Commander.

RESERVE COMMISSIONS

A total of 45 Flying Cadets, who graduated from the Advanced Flying School, Kelly Field, on June 17, 1936, and who completed their additional year of training with Air Corps tactical units, were commissioned second lieutenants in the Air Reserve, and placed on active duty.

Completing 8 months of duty with Air Corps tactical organizations, 37 Flying Cadets, who graduated from the Advanced Flying School on October 7, 1936, were on June 10, 1937, commissioned second lieutenants in the Air Reserve and placed on extended active duty at various Air Corps fields.

On June 20, 1937, a total of 30 Flying Cadets graduating on February 17, 1937, and since that time on duty with various Air Corps tactical units, were commissioned second lieutenants in the Air Reserve and placed on extended active duty.

AUTOMATIC LANDING SYSTEM PERFECTED

On August 23, 1937, after two years of intensive research and design with respect to automatic control flights and automatic flight procedure, two wholly automatic landings were made in the period of one hour under adverse air and wind conditions by Captain Carl J. Crane, Director of the Instrument and Navigation Laboratory at the Materiel Division, Wright Field, Ohio; Captain George V. Holloman, Assistant Director of this laboratory, and Mr. Raymond K. Stout, project engineer in automatic maintenance. Since that time additional landings have been made, in which disinterested personnel have been carried as observers on the flights in order to check the various factors entering into the fully automatic landings performed.

MISCELLANEOUS NOTES

A flight of 9 airplanes from Albrook Field, Panama Canal Zone, took off on January 15th for Managua, Nicaragua, to conduct a search for a missing aviator, transporting a cargo of gold to Managua from the Bonanza mine, about 150

miles distant. Shortly after the arrival of the Army airmen at Managua, the mining company reported another plane missing. The search, lasting two and one-half days, proved in vain, no trace being discovered of either of the two lost ships. The weather was poor the entire time, the mountains being clouded over part of the day, and there being many scattered tropical thunder storms in the valleys. Inability to obtain the proper grade of gasoline at Managua forced the flight to return to Albrook Field on January 20th.

May 28th was proclaimed by the President of the United States as "National Aviation Day," and on this occasion General Malin Craig, Chief of Staff of the Army, issued a statement regarding the progress made in military and commercial aviation in the past few years, also the present and future aircraft strength of the Army.

A total of 33 Second Lieutenants of the Air Corps were promoted to the rank of First Lieutenant, effective June 12, 1937.

Eleven members of the famous "99" Club, an organization of women flyers, visited Selfridge Field, Mich., on June 20th, and were taken on an inspection tour of the various activities at the Air Base. All of the visitors flew to Selfridge Field save one, who was forced to employ another form of transportation during the latter part of her journey due to the breaking of the propeller of her Waco plane.

The reorganized 12th Observation Squadron, which had been stationed at Brooks Field, Tex., for a number of years, was moved to Fort Knox, Ky., on June 20th.

Of the 297 cadets graduating from the U.S. Military Academy, West Point, N.Y., on June 12, 1937, 106 were assigned to the Air Corps Training Center, Randolph Field, Texas, for flying training.

Announcement was made on August 12th that, due to the exigencies of the service, it was necessary to cancel the Mitchel Trophy Race for 1937.

The War Department, on July 20th, approved the following sleeve insignia for the GHQ Air Force: "On a golden orange disc, 2¾-inch in diameter, an ultramarine blue, three-bladed impeller, the curved surfaces emanating from the points of an imaginary ¾-inch equilateral triangle."

Major Victor H. Strahm and Tech. Sgt. Gregory A. Mitchell, of March Field, Calif., were the first American officials to welcome to the United States the Russian flyers, Gromoff, Yumashev and Danilin, who descended in a cow pasture, approximately 30 miles from March Field. The Russian flyers, in their huge batwinged ANT-25 airplane, left Moscow July 12th at 3:21 a.m., Moscow time, and were in the air 62 hours and 17 minutes before landing was made at San Jacinto, the distance covered being approximately 11,500 kilometers. The route took them over the North Pole, thence along the 120th Meridian over Canada, crossing the Rocky Mountains to the Pacific Coast.

Announcement was made by the War Department that the new multi-seater fighter, technically known as the XFM-1, built by the Bell Aircraft Co., Buffalo, N.Y., made its initial trial flight at the Municipal Airport in that city on September 1st, and that the flight was entirely successful. This new monoplane embodies all the latest designed devices to increase speed and air worthiness. Its landing gear and tail wheels are electrically retractable, and it carries flaps to reduce its landing speed. Heated compartments are provided for all members of its crew, which will be needed at its fighting ceiling of over 30,000 feet.

A change in the designation of classes at the Air Corps Training Center was effected on September 29th, the classes thereafter being designated according to the year and time of the year that they finish the course of training,- thus, Class 38-A, 38-B, etc.

In the period of field training during the week of December 1st, the 23rd Bombardment Squadron of Luke Field, T.H., carried out a seed planting program in cooperation with the Chief Forester of the Territory of Hawaii, over 1,000 pounds of seed being dropped during flight over barren terrain to prevent the rapid erosion taking place in that area.

On December 9th and 10th, the 97th Observation Squadron, Mitchel Field, N.Y., conducted tactical missions with the 1st Engineers, U.S. Army, at Fort duPont, Del.



B-18 BOMBERS LAND AT RANDOLPH FIELD

Randolph Field, Texas, was honored on February 2nd by a visit of 13 B-18's, under the command of Colonel Harvey S. Burwell, enroute from March Field, Calif., to Barksdale Field, La. Bad weather grounded the flyers and prevented their take-off until the afternoon of the following day. The Bombardment personnel have as their mission an aerial bombing exhibition upon their arrival at Barksdale Field.

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A DOG-GONE GOOD FLYER

He takes to the air with the greatest of ease- the flying pup of the 7th Bombardment Group of Hamilton Field, Calif. Teddy is just four months old, but he has already accumulated 102 hours flying time. He is the mascot of the organization and there is no doubt he has the flying complex. The roar of motors does things to him, and he's a lonely dog when left behind.

It isn't often, though, that Teddy is left, for he generally follows his airplane out of the hangar and is the first to jump in when the door is opened. Recently, when the Assistant Secretary of War paid a visit to Hamilton Field, he was very pleased with the record of the pup and promised a citation when 500 hours of flight is completed. Last month Teddy flew 56 hours, and at that rate the presentation of the citation is not far off. A parachute is being made for Teddy, so in case of a major emergency he can ride down to a four-point landing.

MAINTENANCE FLIGHT BY ADVANCED STUDENTS

The scheduled "Round the Horn" flight for the present class (38-A) at the Advanced Flying School, Kelly Field, Texas, was finally completed on January 28th with no mishaps, after considerable delay due to adverse weather conditions.

Dust storms and low ceilings along the route both played their part in holding various flights on the ground. The Observation Section, under the command of Captain Russell E. Randall, had the longest delay when they arrived at Hensley Field on Tuesday, January 18th, and remained until the following Monday, January 24th. The first echelon of the Pursuit Section joined them at Hensley Field on Wednesday, January 20th and, although guest facilities were somewhat crowded, there seems to have been no difficulty on the part of those at Hensley Field in keeping everybody happy.

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B-17 BOMBERS ON TRANSCONTINENTAL FLIGHT

Commanded by Major Vincent J. Meloy, Air Corps, Langley Field personnel in ten of the Army's "Flying Fortresses" (Boeing B-17 Bombers) landed at Kelly Field, Texas, on January 24th, during the course of a routine flight from March Field, Calif. The planes were manned by a crew of 35 officers and 56 enlisted men. The journey of approximately 1200 miles was accomplished in six hours, or at an average speed of 200 miles per hour. The visitors left Kelly Field on January 25th, taking off at two-minute intervals.

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ACTIVITIES AT AIR CORPS TACTICAL SCHOOL

Following the respite from map problems which always come with the completion of courses which terminate at the Christmas holidays, the students of the Air Corps Tactical School, Maxwell Field, Ala., have just started with the second epidemic of afternoon problems. The Logistics, Attack and Chemical Warfare courses keep the students busy many afternoons during February, and the important Bombardment course finishes with its map problems early in March. The annual spring vacation of the school will be from March 12th to 20th, inclusive, and then the class will start on the down hill slope toward graduation early in June.

There is one more break in the schedule for the students which comes the second week in May, when the entire class will go to Florida for gunnery training and staff exercises at the Valparaiso Gunnery Range.

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Contribution of material for the News Letter from France and Albrook Fields in Panama will be highly welcomed.

CHECKING VALVE TAPPET CLEARANCES

By the Mitchel Field Correspondent

Due to difficulties encountered by a number of mechanics, who are unable to insert a finger through spark plug hole in locating top center on the compression stroke, and to insure accuracy in their work, the 97th Observation Squadron (Corps & Army), at Mitchel Field, N.Y., has developed a new system for checking valve tappet clearances on the twin row "Wasp" R-1535-7 engine. A metal circular disc with a separate pointer arm is used for this purpose.

The disc is installed on thrust bearing retaining plate studs and pointer attached to rear of propeller hub immediately in front of installed disc. The propeller is turned in direction of rotation until No. 1 piston reaches top center on compression stroke. Pointer is then aligned with top mark on disc for No. 1 cylinder and tightened firmly to the propeller hub. To reach top center on compression stroke for next lobe, propeller turns 480 degrees, then for third lobe on No. 1 cylinder, propeller is again turned 480 degrees, and for fourth lobe same procedure. To reach top center on next cylinder to fire, after checking No. 1 cylinder, pointer is moved to No. 10 cylinder and same procedure is followed.

There are three marks on disc, spaced 120 degrees apart for each cylinder, and cylinders located opposite each other are on same mark on disc. The disc is also marked for checking magneto timing and valve timing.

In an Unsatisfactory Report, recently submitted, the principle of this system was set forth for study by the Materiel Division. In the recommendations on this report, the following remarks were made:

"It is believed that a disc similar to this or one embodying its salient features would be of value and assistance to the various service activities using R-1535-7 engines, as this organization has used disc for about ten months and has proven its usefulness by saving many man hours and improving the exactness of work accomplished. Disc is made of 1/8" sheet aluminum and could be duplicated on metal more suitable for continuous use."

This system was developed entirely through the efforts of Master Sergeant Benjamin Roth, line chief of the 97th Squadron, who also designed a special drip pan for the O-46A type airplane last year. This pan proved to be a great help toward cleanliness in the hangar, as all oil and grease dropping from the engine, when work or inspections are in progress, falls on the pan suspended by hooks under motor, and drains into a bucket underneath.

Roth, then a Staff Sergeant, was a mem-

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AIR CORPS OFFICERS COMPLETE SPECIAL COURSE IN NAVAL OPERATIONS

By the News Letter Correspondent

After two weeks of intensive instruction, twenty selected Air Corps officers completed a special course in Naval Operations on January 21st at the Air Corps Tactical School and were presented Certificates of Graduation by Brigadier General H. C. Pratt, the Commandant. This Special Course was inaugurated principally to give officers of the GHQ Air Force a more up-to-date knowledge of Naval Operations and what to expect in the case of joint operations. The course of study covered about twice the amount of ground as will be covered in the regular Naval Operations Course which is given to the regular students of the Air Corps Tactical School.

Great credit for the successful conducting of this special course goes to Lieut. Commander Miles R. Browning, U.S. Navy, who was the Chief Instructor and who is the first Naval officer to be regularly detailed to the Tactical School as an instructor. His handling of the course with its many controversial features was exceptional, and the entire class showed great appreciation of his efforts. Colonel Herbert A. Dargue, Assistant Commandant, and Major Frederick von H. Kimble assisted Commander Browning in various phases of the instruction.

It is not known whether another similar course will be conducted during the next school year, and undoubtedly this will depend largely upon the desires of the GHQ Air Force for the training of more officers in this subject.

The graduates of the course were: Colonels Lewis H. Brereton and Walter G. Kilner; Lieut. Colonels Harvey S.Burwell, Earl L. Naiden, Carl W. Connell, Francis M. Brady; Majors Samuel M. Connell, Phillips Melville, Claude E. Duncan, Howard K. Ramey, James P. Hodges, and Paul H. Prentiss; Captains Francis B. Valentine, Kenneth N. Walker, Charles H. Caldwell, Neil B. Harding; 1st Lieuts. John A. Samford, Ronald R. Walker, Draper F. Henry and Paul G. Miller. Colonel Brereton is on duty as instructor at the Command and General Staff School, while the remainder of the officers are all on duty with the GHQ Air Force.

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GHQ A.F. DEMONSTRATION AT BARKSDALE FIELD

The entire student class of the Air Corps Tactical School and most of the instructors attended the GHQ Air Force Demonstration at Barksdale Field, La., on February 5th. The demonstration was staged principally to give the students of this school an idea of the use of the Attack, Bombardment and Pursuit arms of the GHQ Air Force. The results of the program were highly satisfactory from the school viewpoint, and already plans are under way to request a similar demonstration during the next school year.

Classes were terminated early on the morning of February 4th, and by noon the advanced guard were on their way to Barksdale Field in the antiquated B-6's. The other airplanes were dispatched at short intervals until every airplane in commission at Maxwell Field was on its way, except for the one airplane set aside for the weather flights. The airplanes available at Maxwell Field were not sufficient to carry all the personnel involved, but the loan of a C-33 Transport from Barksdale Field just filled the bill. A few of the airplanes returned to Maxwell Field on Saturday night, while the remainder made the trip Sunday morning, and all arrived without incident except for one B-6 which became stuck in the mud at Vicksburg. The plane was one of a formation of three which ran into a stretch of bad weather and, being without efficient radio facilities to determine the depth of the bad weather, put back into Vicksburg for a weather report. The plane, piloted by Major Sigmund F. Landers and Captain Hobart R. Yeager, taxied up to the line, and after the plane had come to a stop a recent PWA excavation started to settle and the airplane went along. The reports received at the field from the pilots were to the effect that the wings were the only thing which kept the airplane from going completely out of sight.

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Checking Valve Tappet Clearances

(Continued from Page 17)

ber of the Byrd First Antarctic Expedition in 1929, and upon his return was promoted to the grade of Master Sergeant and awarded the Soldier's Medal.

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HAMILTON BOMBERS RETURN FROM BARKSDALE

Four of the Douglas B-18 Bombardment planes returned to the air base at Hamilton Field, Calif., on February 7th, after performing a mission which took them to Barksdale Field, La. The purpose of this mission was to demonstrate tactics as employed in the latest type aircraft before members of the Air Corps Tactical School. Officer personnel who participated were as follows: 1st Lieuts. J.H. Atkinson (flight commander), J.J. Morrow, E.P. Rose, J.H. Wallace, H.W. Pennington, C.A. Brandt, G.H. Tibbets, J.A. Way, J.D. Underhill, W.G. Carter, W.R. Graham; 2nd Lieuts. W. Lewis, D.H. Walker, S.V. Payne, W.C. Capp and J.M. Reynolds.

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FLIGHT OF Y1B-17'S TO BUENOS AIRES

According to a recent announcement of the War Department, six Y1B-17 airplanes from the GHQ Air Force, Langley Field, Va., will comprise the flight of U.S. Army airplanes to Buenos Aires, Argentina, in order to participate in the inauguration ceremonies of the new President-Elect of the Argentine Republic, Dr. Roberto M. Ortiz. The ceremonies will take place on February 20, 1938.

The flight will be under the command of Lieut. Colonel Robert Olds, whose flagship will be No. 10. The other five planes will be commanded by Majors Vincent J. Meloy, Caleb V. Haynes, Harold L. George, Captains Neil B. Harding and Archibald Y. Smith. The complete list of operating personnel, all from Langley Field, is as follows:

PLANE NO. 10 (flagship)

Lieut. Colonel Robert Olds, Major Edwin R. McReynolds, Captain Robert B. Williams, 1st Lieuts. John W. Egan, Edwin L. Tucker, Staff Sgt. James J. Boutty, Pvt. 1st Cl. Archie R. Jester, Pvts. Joseph H. Walsh and Kenneth E. Trout.

PLANE NO. 51

Major Vincent J. Meloy, Captain Alva Harvey, 1st Lieuts. Frederick E. Glantzberg, Torgis G. Wold, Staff Sgt. Henry L. West, Sgt. Jack A. Franske, Corp. Clarence D. Lake, Pvt. 1st Cl. John W. Yankowsky.

PLANE NO. 52

Captain Neil B. Harding, 1st Lieuts. David R. Gibbs, Ralph E. Koon, Gerald E. Williams, Tech. Sgt. Besola Cobb, Sgt. Lewis Hayduke, Pvt. 1st Cl. Harold J. Nycum, Pvt. Frederick W. Woitineck.

PLANE NO. 80

Major Caleb V. Haynes, 1st Lieuts. Thomas L. Mosley, Curtis E. LeMay, 2nd Lieut. Joseph B. Stanley, Tech. Sgt. Adolph Cattarius, Staff Sgt. William J. Heldt, Corp. James E. Sands, Pvt. 1st Cl. Donald F. Downey.

PLANE NO. 82

Captains Archibald Y. Smith, Cornelius W. Cousland, 1st Lieuts. Richard S. Freeman, John A. Samford, Sgt. George R. Charlton, Staff Sgts. Troy V. Martin, Henry P. Hansen, and Pvt. 1st Cl. Russell E. Junior.

PLANE NO. 61

Major Harold L. George, Captain Darr H. Alkire, 1st Lieuts. William A. Matheny, Paul G. Miller, Tech. Sgt. Gilbert W. Olson, Staff Sgt. Everett Kirkpatrick, Corporal William A. Withers, Pvt. 1st Cl. Norbert D. Flinn.

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Master Sergeant Richard Rogers, Air Corps, Langley Field, Va., was appointed a Warrant Officer, U.S. Army, effective February 1, 1938, and assigned to the Air Corps at Chanute Field, Rantoul, Illinois.

THE STAINLESS STEEL WING

By the Materiel Division Correspondent

The installation of a stainless steel wing at the Materiel Division, Wright Field, Ohio, on an Observation Amphibian (OA-4A) airplane during the latter part of 1937 was the culmination of an experimental program in connection with this construction extending back well over five years. It has long been realized that from the maintenance standpoint the wood wings of the OA-4A were inadequate. Joints loosened under high humidity conditions and in other respects they were a weak feature on what was otherwise acknowledged to be a rugged and serviceable aircraft.

When the suitability of a metal wing was considered, it was known that duralumin, with its high corrosion characteristics in sea air or water, could not be used. It was decided to try stainless steel.

The first step was the submerging of specimens in tide water for testing over a period of time. No corrosion either in material or around spot welds resulted. A stainless steel wing was constructed and submitted to static testing at the Materiel Division. At the conclusion of these tests it was exposed to the elements at Wright Field for more than two years without noticeable deterioration. As a result of the static tests, some parts of the wing had to be reinforced. A thorough testing under vibratory loads simulating those in flight followed. No failure occurred either in the thin sheet or the spot welds.

With this basis of encouragement, contracts for a total of seven stainless steel wings were entered into with Fleetwings, Inc. The purpose was to mount them on OA-4A airplanes for service testing. Two are now at Langley Field, one will go to Panama, one to Hamilton Field, one to Mitchel Field, and the others elsewhere to coastal squadrons.

The steel wing is lighter than the wood wing, based on the same design load factors and same gross weight of the airplane. The actual weight of the steel wing is 4 pounds greater than the wood wing it replaced, but the steel wing was designed for a 50 percent greater low angle of attack load factor and a 20 percent greater inverted flight load factor than the wood wing. It has a very smooth external surface, the spot welding allowing slight speed advantages. It requires no finish or paint, which is a weight saving and maintenance advantage.

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Major Chilion F. Wheeler, who for a number of years has been stationed at the Air Corps Materiel Division, Wright Field, was transferred to Scott Field.

THE HAWAIIAN ISLANDS

By an Air Corps Officer who served there.

In our last article on the subject of the Hawaiian Islands, we promised another which would contain more details of the interesting features of the "Big Island."

Of course, not all of an Air Corps officer's time in Hawaii, as elsewhere, is devoted to flying. Since the Department Commander encourages officers to avail themselves of a certain amount of authorized "detached service," spent at the Army's Rest Camp at Kilauea Volcano, we eventually found it expedient to spend a week at that interesting and thoroughly delightful place.

The overnight trip by steamship took us along a route practically identical with that described in our last article, except that our altitude throughout could be termed zero. Darkness descended during the passage over the distance from Honolulu to Molokai, but afforded still a different view of Diamond Head, the symbol of Hawaii, under conditions of light existing at rainbow time, as the sun is preparing to cast its last daily "Aloha" glance at Oahu.

The water was normally rough until we reached Northwestern Molokai, but the passage for the remainder of the night, through "Lahaina Roads," the body of water in lee of Molokai and Maui, is best described by our self-coined word: mill-pond-acious.

We needed no alarm clock on this particular journey, because the extremely rough water encountered, as is nearly always the case, just after leaving the protection of Haleakala Mountain on southeastern Maui, made the effort to keep from being thrown from our beds too great for what it was worth. In consequence, we were on deck bright and early and viewed the approach to Hawaii and the subsequent trip down the eastern coast as far as Hilo harbor with excited interest.

The most interesting phase of this trip is the passage, within a quarter mile, of the Hamakua coast, some fifteen or twenty miles in length. Here nature provided the spectacular phenomenon of one thousand-foot vertical cliffs rising directly from the deep ultramarine blue of mid-ocean. The geologists inform us that this condition was caused by the stripping off of millions of tons of volcanic earth in one of the most tremendous landslides evident anywhere in the world. Erosion resulting from rainfall on the slopes of Mauna Kea has eaten out numerous flat-floored valleys whose few inhabitants can only emerge by means of zigzag foot paths up the steep sides.

The cliffs of the Hamakua coast give way to more gradual slopes covered with sugar cane fields and small streams.

The auto trip from Hilo to Kilauea was along a beautifully paved road thirty miles in length, during which ride we noticed the climb of 4,000 feet mainly by virtue of the gradual decrease in temperature. We learned later that artificial heat was required each morning and evening, and were delighted at being able to enjoy an open fire both at the club house and the lovely Luke Field cabin, especially in view of existing mid-summer temperatures in the middle eightiesat sea level.

During our stay at the Rest Camp, we drove and walked through the beautiful fern forests, with fern trees from twenty to forty feet in height. We also made frequent trips along the "chain of craters," no two of which are similar, the only active one viewed being that of "Halemaumau," the "pit of eternal fire" within Kilauea Crater itself.

"Mokuaweoweo," at the summit of Mauna Loa, is also classed as an active crater, said to be the largest in the world, but the difficult trip up the remaining ten thousand feet did not appeal to us.

The three spots we found most interesting, which were within comparatively easy reach of the military camp, were the bird forest, the Thurston Lava Tube and its entrance through a veritable fairyland glen, and Mauna Iki (little mountain), in the Kau desert. The Kau desert itself is extremely interesting, and consists of the most jagged lava deposits we have ever witnessed. In this region it is said that King Kamehameha, the conqueror and consolidator of all of the islands of the group and, as far as we know, the only warlike Hawaiian native, concentrated his army in 1789 and 1790. The tremendous eruption of 1790 sent molten lava and volcanic mud. A large proportion of the army is said to have been caught in the eruption and completely annihilated. Mute evidence still exists of the mad milling around which must have been indulged in by the heat-crazed mass of humanity, in the form of deep imprints of bare feet in the clay, which has hardened to such an extent that the rains of the intervening years have failed to eradicate the prints. Due to the souvenir-attaching propensities of the many tourists who make this trip around and through the Kau desert, these footprints are now a distinct rarity, but we were able to find a few.

Recent eruptions have produced tumbling streams of hardened or hardening lava, but the earlier eruptions evidently threw gushers of thoroughly molten material high into the air, where it was whipped to hair-like wisps by the violent air currents. It is still possible to find wisps of "Pele's hair," so named after "Madam Pele," goddess of the volcano. Woe betide the foolish treasure

seeker who stuffs his pockets full of this material without providing a suitable container - as we can well testify- because of the fact that it is brittle and "crawly" and gives the foolish bearer the same pleasurable experience he would have with a pocket or undershirt full of short-cut horsehair.

The bird forest, mentioned above, is an area filled with older trees, of fair size, and lovely fields, which escaped the lava flows of 1790 and 1847. A few singing varieties of birds which have escaped the nest raids of rats and mongooses, enliven this area with their articulations - such a welcome relief from the interminable minah birds and sparrows.

The Thurston Lava Tube extends some 1400 feet into the earth, the first 400 feet being open for those who wish to explore it, and was caused by the rapid cooling of the external portions of an underground lava flow while the inner core remained thoroughly molten long enough to flow away.

We took the 100-mile loop drive to the beautiful Puna coast (southeastern Hawaii), where we saw huge trees whose trunks are nearly obscured by tropical vines, and stretches of hard lava beach and wooded headlands.

We did not essay the nearly 1,000-mile drive around the island, thereby missing many of the most interesting sights and most primitive conditions to be found in the Territory, as we were informed that the roads were bad and the trip quite difficult. It is presumed that this condition will be eliminated, as far as the roads are concerned, in the future, and we hope to be in a position to complete this portion of our education on a future sojourn in the Territory.

To this day we cannot understand how we found so little opportunity to get around more during nearly three years in Hawaii but, rather suddenly, we realized that our departure was upon us. After the throes of discarding and packing, with which all of us are only too familiar, we found ourselves standing, dazedly, on the deck of the "St. Mihiel," while endeavoring to keep our noses above the flower leis, bestowed upon us by many friends fortunate enough to remain longer. We felt strange lumps arise in our throats when the Army band struck up "Aloha Ae," and our vision became unaccountably blurred when the ship cast off to the ever thrilling notes of "The Song of the Islands."

After Diamond Head was to our west and we were preparing to go below, we saw an "Aloha" flight of airplanes approaching and suddenly realized that the salute was for us. The first element to arrive and the last to leave was our old squadron and, as the drone of the motors finally faded in the distance and the planes themselves became mere specks over good old Diamond Head, the true meaning of "Aloha" took us completely - never, never "Goodbye" but "'till we meet again."

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OFFICERS ASSIGNED TO AIR CORPS TACTICAL SCHOOL

Under Special Orders of the War Department, recently issued, fifty Air Corps officers are assigned to duty as students at the Air Corps Tactical School, Maxwell Field, Ala., for the 1938-1939 course, reporting not later than September 13, 1938, for this duty, viz:

From Office Chief of the Air Corps: Majors Rowland C.W. Blessley, William B. Souza, James A. Mollison, Captain Donald F. Stace.

From Langley Field, Va.: Majors Harvey H. Holland, Otto G. Trunk, Captains John H. McCormick, Allen R. Springer, Randolph P. Williams, 1st Lieut. David R. Gibbs.

From Barksdale Field, La.: Major Edward M. Morris, Captain Charles G. Pearcy.

From Mitchel Field, N.Y.: Major Leo F. Post, Captains JamesK. DeArmond, John P. Doyle, Jr. John N. Jones, Milton M. Towner, Walter C. White.

From Selfridge Field, Mich.: Captain John M. Sterling, 1st Lieut. Ernest K. Warburton.

From Chanute Field, Ill.: Majors William M. Lanagan, Donald G. Stitt, Captain Hugo P. Rush.

From Fairfield Air Depot, Ohio: Majors Oakley G. Kelly, Ralph B. Walker.

From Wright Field, Ohio: Major James A. Woodruff, Captains Samuel R. Harris, Jr., Carl J. Crane, Alfred H. Johnson, 1st Lieut. Leonard F. Harman.

From Randolph Field, Texas: Captains Charles P. Cabell, Glen C. Jamison, Walter S. Lee, Kenneth P. McNaughton, 1st Lt. Charles T.Arnett.

From Kelly Field, Texas: Captain Walter G. Bryte, Jr.

From Bolling Field, D.C.: Captain Arthur L. Bump, Jr., 1st Lieut. Stanley K. Robinson, Captain George W. McGregor.

From Maxwell Field, Ala.: Majors James C. Cluck, Fred C. Nelson, 1st Lieuts. Robert E.L. Choate, Carl R. Storrie.

From Pope Field, Fort Bragg, N.C.: Major Edmund P. Gaines.

From Fort Sill, Okla.: Major Frederick D. Lynch.

From San Antonio Air Depot, Texas: Major Elmer D. Perrin.

From Harrisburg, Pa.: Major Henry H. Reily, A.C. Technical Supervisor, Middletown Air Depot Control Area.

From Selfridge Field, Mich.: 1st Lieut. Frank J. Coleman.

From Schoen Field, Ft. Benjamin Harrison, Ind.: Captain Milton J. Smith.

From Hawaiian Department: 1st Lieut. William C. Sams.

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Major Devereux M. Myers, who has been on duty at Hamilton Field, San Rafael, Calif., for the past several years, has been relieved from duty thereat and assigned to the Denver Branch of the Air Corps Technical School, Lowry Field.

LIST OF NONCOMMISSIONED OFFICERS QUALIFIED FOR MASTER SERGEANT, AIR CORPS
Effective January 1, 1938.

1 Feiertag, William F.
2 Hallam, John
3 *Foster, Arthur C.
4 Smith, Chester M.
5 Johnson, Carl L.
6 *Sweeney, Charles L.
7 Bothne, James N.T.
8 Hanaford, Don A.
9 Davis, John L.
10 McKnight, Charles H.
11 *Klinger, Benjamin H.
12 Locher, Joseph H.
13 *Carr, Lynn B.
14 Kretz, William
15 *Rohlik, Waldoe
16 Kelly, Forrest F.
17 Bentley, Leonard L.
18 McAndrews, John
19 Malloy, Stephen A.
20 Pearson, James
21 Berg, Peder
22 Hobson, Earl
23 Walters, Clyde L.
24 Ceccato, Peter
25 Barns, Thomas V.
26 Perkins, George W.
27 Stoser, Walter
28 McNeely, Ralph
29 Suggs, John M.
30 Wurperfeld, John A.
31 Leffler, Charles H.
32 Kendrick, Bryan J.
33 Carpenter, Ross
34 Hohensee, Emmit F.
35 *Harrison, George E.
36 Kohn, Louis
37 Harris, Arthur H.
38 *Tilton, Everett M.
39 Ashby, Walter
40 Justice, Nye P.
41 Draper, Charles W.
42 Witsch, Henry A.
43 *Winans, Edward L.
44 Ward, Leamon V.
45 Bogdanski, Adam
46 *Lorimer, Robert R.
47 Johnson, Lonnie M.
48 Gordon, Frederick J.
49 Moslander, Charles E.
50 Innes, Victor A.
51 *Davids, Ewald
52 Cobb, Horace W.
53 Swanson, Nels E.
54 Wing, Richard E.
55 Doyell, Clyde W.
56 Lantz, Carl G.
57 Hans, Karl L.M.
58 McGhee, Lloyd H.
59 Darby, Harry
60 *Wentzell, James H.
61 Sage, Hobson D.
62 Wheeler, Adam L.
63 Ritenour, Ervin W.
64 DesMarais, William
65 Schmidt, George E.
66 Stein, Joseph J.
67 Leroy, Harold D.
68 Brown, Lee E.
69 McCartney, George D.
70 Herb, Donald P.
71 Blais, James G.
72 Haffner, Hans G.C.
73 Wiedekamp, Karl T.
74 Blackden, William H.
75 Hluchan, Charles
76 Auer, Adam M.
77 Jensen, Peter
78 *Hill, James W.
79 Albin, Louis B.
80 *Alexander, Harry W.
81 Cheska, Benjamin A.
82 Graham, John
83 Crone, Carmon E.
84 Downing, Harvey J.
85 *Gargus, Alvin W.
86 Miller, Fred P.
87 Turner, William H.
88 Goad, Robert L.
89 Hopper, Walter S.
90 Leary, Vernon G.
91 Haynes, Paul H.
92 Raymond, Edgar J.
93 Williford, Leon A.
94 Jones, Hurley D.
95 Apple, William V.
96 Lofley, William J.
97 Roberts, Carl C.
98 Hoijer, Richard E.
99 *Grabsky, Walter
100 Williams, Wallace H.
101 Filkins, Joseph A.
102 Schaefer, Chris J.H.
103 Bush, Samuel T.
104 Willison, Thomas L.
105 Peckham, Russell C.
106 Gibbins, Stanley K.
107 Simons, Wilbur J.
108 Baros, Rudy J.
109 Fisher, George W.
110 *Thermenos, Nicholas
111 Jewell, Arvin B.
112 Glasscock, Harry
113 Boward, Richard
114 Valtierra, Leobardo
115 Chambliss, John R.
116 *Stanowich, Steve
117 Mitchell, George W.
118 Adams, Firman S.
119 Koziburski, Edward A.
120 Lindsey, Jasper E.
121 *Warren, Luther
122 Mueller, Charles
123 Christian, Walter
124 Merian, August A.
125 Fusz, Charles F.
126 Hobart, Clyde J.
127 Loomis, Sidney E.
128 Himes, Olin C.
129 Mathews, Daniel A.
130 Dreier, Elmer L.
131 Maroul, John J.
132 Von Euw, John B.
133 Glasscock, Benton D.
134 Myers, Allen G.
135 Domes, Johann
136 Fitzgerald, John E.
137 Palmer, Clarence A.
138 *Kelly, Robert J.
139 Neff, Frank D.
140 Smith, Alfred N.
141 Logsdon, Jewel G.
142 Casto, Clyde R.
143 Moorhead, William
144 Thompson, Benton T.
145 Cattarius, Adolph
146 Hoffman, Carl
147 Thomas, Robert H.
148 Tupper, Hobson
149 Thomas, Edwin D.
150 Sampson, Harold F.
151 Drobin, Joseph S.
152 Hooe, Roy W.
153 Clark, Irvin L.
154 Baldwin, Thomas J.
155 Craig, Don J.
156 Ferrell, Bruce R.
157 Bell, Charles C.
158 *Jones, William L.
159 Dombeck, Jacob S.
160 Mick, Vernon
161 Stolte, Arthur
162 *Lawrence, Harry E.
163 Rosser, John C.
164 Johnson, Harold V.
165 Waters, Claude G.
166 Swisher, Douglas M.
167 Moore, Virgil
168 *Casey, Patrick T.
169 Freshwater, Glenn E.
170 Parrett, Raymond C.
171 Burroughs, John J. Sr.
172 Wallace, John R.D.
173 Young, Stephen B.
174 Quinn, Ralph E.
175 Revert, Artie L.
176 Waddell, Walter A.
177 Forrest, James A.
178 Freathy, Albert E.
179 Hartley, Ernest H.
180 Townsend, William B.
181 Fox, William B.
182 Olson, Gilbert W.
183 Redifer, Earl B.
184 Henneck, Michael P.
185 Scott, Elliott
186 Randles, Arthur E.
187 Symington, Douglass
188 *Bishop, Edward J.
189 Hughes, Raymond J.
190 Pope, William E.
191 Faust, Carl M.
192 Waytulonis, Victor M.
193 *Miller, Joseph J.
194 Craft, Tennyson M.
195 Silvers, Lee
196 Marth, Hugh H.
197 Gossett, Henry
198 Reist, Emil
199 Akers, Thornton
200 Tomberlin, George D.
201 Foster, Edwin C.

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202	Hamilton, Robert E.	214	*Axford, Leo W.	225	*Hahn, Richard W.
203	Grossman, Paul	215	*Harmon, William T.	226	Cayhue, Arthur H.
204	Callaghan, George	216	Brees, William M.	227	Hewitt, Albert G.
205	Croy, William D.	217	Crawford, Wallace W.	228	Dryer, Howard H.
206	Junkert, Albert G.	218	Hart, Herman	229	Grey, Joseph R.
207	Walsh, Lambert C.	219	Field, Charles B.	230	Fulkrod, Benjamin F.
208	Gray, Henry H.	220	Dozier, John	231	*Johnsom, Lloyd N.
209	Herman, Leo I.	221	Schooler, Oscar H.	232	Totman, Theodore C.
210	Mitchell, Gregory A.	222	Philapy, Russell L.	233	*Mannion, Martin D.
211	Housen, Syle W.	223	Holt, Jewel A.	234	Hudson, Littleton J.
212	Brown, George P.	224	Siebenaler, Frank J.	235	*Hartman, Ferdinand
213	Scott, Grover B.				

Note: Asterisk preceding name indicates rank of First Sergeant. Remaining noncommissioned officers hold grade of Technical Sergeant.

Technical Sergeant Feiertag and 1st Sergeant Hallam, holding positions Nos. 1 and 2, respectively, on this list, were appointed to grade of Master Sergeant since January 1, 1938.

The list of qualified Staff Sergeants eligible for promotion to Technical Sergeant will be published in the next issue of the News Letter.

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27TH PURSUIT SQUADRON STARTS LONG TRAINING FLIGHT

Starting with the rising sun in Michigan, Army Air Corps pilots of the famous 27th Pursuit, on February 9th, began a long and arduous trek by air which was scheduled to take them through some sixteen of these United States in seven days. The flight was made as a part of the regular annual training program required of all of the Army's fighting air units.

Covering more than 4,600 miles in a week, the Squadron was to fly the entire route in defensive formation. Newer pilots, recently assigned to the 27th from the Advanced Flying School, Kelly Field, Texas, were afforded an opportunity to test their ability to "take it" day after day, while the older pilots in the lead positions were likewise subjected to a test - whether the advancing years have lessened their keenness and endurance.

According to Major Willis R. Taylor, Squadron Commander, the principal purposes of the flight were three in number: First, to familiarize all pilots with airdromes, ground and air navigation facilities, and terrain features in the various States; second, to practice the navigation of large units over the Department of Commerce Airways under the newly-revised regulations of the Bureau of Air Commerce and in all types of weather; and third, to practice the refueling and maintenance of aircraft in large numbers without the aid of any personnel other than the pilots of these single-seaters. No mechanics were taken on the flight.

The flight, composed of fifteen of the older type of Pursuit aircraft, was to cross the States of Michigan, Ohio, Kentucky, Tennessee, Alabama, Georgia, Florida, Mississippi, Louisiana, Texas, New Mexico, Oklahoma, Arkansas, Missouri, Illinois and Indiana before returning to its air base at Selfridge Field, Mich. It was anticipated that nearly every possible kind of weather conditions would be encountered during the progress of the journey, with temperatures ranging from the eighties in Florida to below zero in the north central States; from steaming rain in the scuth to crystal ice in a few hours.

Weather conditions permitting, the plans called for brief pauses for refueling, food and a few hours of precious sleep at the following localities:

First day: Bowman Field, Louisville, Ky.; Maxwell Field, Montgomery, Ala.

Second day: Flight "A" - Municipal Airport, Jacksonville, Fla.; Municipal Airport, Daytona Beach, Fla. Flight "B" - Municipal Airport, Jacksonville, Fla.; Drew Field, Tampa, Fla.

Third day: Flight "A" and Flight "B" - assemble at Municipal Airport, Jacksonville, Fla.; Navy Station Field, Pensacola, Fla.

Fourth day: Shushan Airport, New Orleans, La.; Municipal Airport, Houston, Texas.; Randolph Field, San Antonio, Texas.

Fifth Day: Dryden Airdrome, Dryden, Texas; Biggs Field, El Paso, Texas.

Sixth day: Municipal Airport, Midland, Texas; Fort Sill, Lawton, Oklahoma.

Seventh day: Municipal Airport, Muskogee, Okla.; Scott Field, Belleville, Ill.; Chanute Field, Rantoul, Ill.; Selfridge Field.

The personnel of the 27th Pursuit Squadron on this flight are enumerated below, as follows:

Commanding: Major Willis R. Taylor, assisted by 2nd Lieuts. Raymond P. Todd and William Kimball.

Flight "A": 1st Lieut. Murray C. Woodbury, Commanding; 1st Lieut. D.W. Hutchison, 2nd Lieuts. Thomas J. Barrett, Paul F. Helmick, James L. Bledsoe, J. Francis Taylor.

Flight "B": 1st Lieut. Robert Israel, Commanding; 2nd Lieuts. C.P. Dittman, Charles E. Marion, Julian M. Bleyer, Jack L. Schoch and Don L. Wilhelm, Jr.

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Under Special Orders of the War Department recently issued, Captain Townsend Griffiss, Air Corps, is relieved from duty as Assistant Military Attache for Air to Spain, France and Belgium, and from station at Paris, France, and assigned to duty at Maxwell Field, Ala.

Major George G. Cressey, Air Corps, who has been on duty at Scott Field, Ill., has been transferred to the Middletown Air Depot, Middletown, Pa., for duty.

DEAD RECKONING AND CELESTIAL NAVIGATORS

The Headquarters of the GHQ Air Force, Langley Field, Va., recently published a list of dead reckoning and celestial navigators, viz:

Dead Reckoning Navigators

Major Lester J. Maitland, 1st Lieuts. Arthur F. Merewether, William C. Mills, Frederick E. Calhoun and James A. Ellison, all of Barksdale Field, La.

Celestial Navigators

First Lieuts. John H. Davies, William H. Matheny, Warren H. Higgins and Paul G. Miller, of Langley Field, Va.

Major Ulysses G. Jones, Captains Joseph Smith, Milton M. Towner, 1st Lieuts. Emery S. Wetzel, Dwight Divine, II, Milton F. Summerfelt and Millard C. Young, of Mitchel Field, N.Y.

Captain John F. Guillett, 1st Lieuts. Reuben C. Hood, Jr. and Robert F. Tate, of Barksdale Field, La.

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WAR DEPARTMENT ORDERS

Changes of Station

To Langley Field, Va.: Colonel Walter H. Frank, from Mitchel Field, N.Y., for duty with the GHQ Air Force.

To Brooks Field, Texas: 1st Lieut. LeRoy Hudson, from assignment and duty as Control Officer, Southwestern Airways, Fort Sam Houston, Texas.

To Middletown Air Depot, Pa.: Major John R. Drumm, from Langley Field, Va.

To Randolph Field, Texas: 1st Lieuts. Wm. M. Canterbury, from the Philippines; Donald D. Arnold, from Hawaiian Department.

To Materiel Division, Wright Field, O.: 1st Lieut. Henry W. Bowman, from Langley Field, Va.

To Kelly Field, Texas: 1st Lieuts. William L. Lee and Edward H. Porter, from Philippines.

To Fort Sill, Okla.: Captain Gerald G. Johnson from Randolph Field, Texas, for duty with the 1st Balloon Squadron.

Transferred to the Air Corps

The following-named officers have been transferred to the Air Corps, January 24, 1938, with rank from June 12, 1936, and upon the completion of their present course of instruction at the Advanced Flying School, Kelly Field, Texas, are assigned to stations, as follows:

2nd Lieuts. Gordon H. Austin (Field Artillery) to Bolling Field, D.C.; Jackson H. Gray and James R. Gunn, Cavalry, to the Philippines; German P. Culver, Infantry (rank from June 12, 1935) to the Philippines.

Reserve Officers to extended active duty

Second Lieutenants

To Randolph Field, Texas: William Somogy, Lorain, Ohio, and Crocker Snow, Buzzards Bay, Mass., to February 14, 1941, also Aaron Taft Vance, of Indianapolis, Ind.; Rupert Eugene Herr, Lancaster, Pa., to February 11, 1941.

To March Field, Calif.: Jean Rogers Byerly, Estes Park, Colo., to June 30, 1940; Lloyd Clifford Waldorf, Burbank, Calif., to February 9, 1941.

To Pope Field, Ft. Bragg, N.C.: Arthur L. Logan, Floral Park, L.I., N.Y., to January 14, 1941.

To Hamilton Field, Calif.: Junius W. Denison, Ojai, Calif., to July 20, 1940.

To Selfridge Field, Mich.: William Mason Reid, Minneapolis, Minn., to December 10, 1940.

To Langley Field, Va.: Earnest Hodge Briscoe, Knoxville, Tenn., to February 6, 1941; George Wilson Hazlett, Tarentum, Pa., to February 9, 1941.

Second Lieut. Harry R. Melton, Jr., Cavalry, was transferred to the Air Corps, January 24, 1938, with rank from June 12, 1936, and upon completion of his present course of instruction at the Advanced Flying School, Kelly Field, Texas, is assigned to Langley Field for duty.

Master Sergeant Richard Rogers, Air Corps, was appointed a Warrant Officer, Regular Army, with rank from February 1, 1938, and assigned to duty at Chanute Field, Ill.

Major Charles A. Pursley, Air Corps, was on February 1, 1938, relieved from assignment and duty at Hqrs. 8th Corps Area, and assigned to duty as Control Officer, Southwestern Airways, Fort Sam Houston, Texas.

WARM RECEPTION IN STORE FOR 31ST BOMBARDMENT

All departments of the 5th Composite Group at Luke Field, T.H., are busily engaged in the making of preliminary plans for the reception of the 31st Bombardment Squadron from Hamilton Field, Calif. The 31st is the newest addition to the Hawaiian Air Forces of the Army. Final arrangements have not yet been made, but it is anticipated that the Squadron will be based at Hickam Field and will operate as a part of the 5th Composite Group. All personnel of that Group extend an "Aloha" to the incoming unit.

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DOG DESERTS ARMY FOR THE NAVY

Elsewhere in this issue of the News Letter is an item concerning the air-mindedness of a certain dog at an Air Corps station. From Luke Field, T.H., however, there comes a story which is entirely different.

On January 20th, through the medium of a radiogram from the Commanding Officer of the USS TANAGER, it was learned that "Scrappie," popular member of Luke Field's Canine set had become bored with the routine of post Life and embarked on the above named Navy vessel just prior to her departure on a short cruise. The following radiograms revealed the outcome of his yearning for the sea:

Luke Field - from - TANAGER Jan 19 1937
Found dog on board after departure Sunday bearing Luke Field license twenty four. Request owners be notified the dog will be returned on completion present exercises about twenty seven January 0850.

To Major Van Ingen
Your dog is aboard the USS TANAGER. Will be back about January twenty seven. Stone (Capt.)

Major Van Ingen, S.C., Post Signal Officer and owner of the dog states he had no intimation of "Scrappie's" apparent dissatisfaction with Air Corps life.

AIR CORPS NEWS LETTER



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WAR DEPARTMENT
WASHINGTON

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VOL. XXI A I R C O R P S N E W S L E T T E R NO. 5.

Information Division
Air Corps

March 1, 1938

Munitions Building
Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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THE ARGENTINE FLIGHT

As seen by a Langley Field Correspondent

Flying the flags of Chile, Argentina, Peru and the United States from their cockpits, the six Boeing Bombers of the 1938 Good-Will Flight to Buenos Aires taxied onto the mat at Langley Field at 5:00 p.m., Sunday, February 27th. The joy of the pilots and mechanics on arriving at their starting point was equalled only by the feeling of the officers and enlisted men of Second Wing Headquarters.

While the intrepid messengers of Pan-American friendship were battling through the storms and tornadoes of the sub-equatorial regions, all personnel at Langley Field were watching every detail of the air hegira from their offices. Long into the small hours of the morning, Brigadier General Gerald C. Brant and his staff pored over the progress map charted on the large drawing table, eager to hear the latest tidings from Lieut. Colonel Robert Olds and the commanders of the other five "Flying Fortresses."

All of the resources of Headquarters and Headquarters Squadron, Second Wing, GHQ Air Force, were devoted to making the flight a success. One of its most pleasant functions was to pass onto the keenly interested public the latest dispatches from Colonel Olds. So efficient were the Wing and associated army radio stations, that at Wing Headquarters and at the War Department in Washington draftsmen were plotting their maps an average of twelve minutes after Colonel Olds had finished sending his latest position report. It is interesting to note that the South American public obtained the news of the progress of the flight all the way from the United States while the Boeing Bombers were passing over them.

Early preparations for the flight to honor the new Argentine Administration were necessarily shrouded in secrecy. For two or three days prior to the War Department's first brief announcement, many of the pilots and mechanics knew only that they were going on a long flight. For all some of them knew, the air journey might have been to Panama or Hawaii. But that did not retard or hamper the speed and thoroughness with which preparatory details were executed in those first few days.

With the formal annoubcements of the State and War Department, work moved at even a faster clip. Passports were prepared, visas to countries in which landings might occur were hurriedly completed, and all the other administrative details incidental to a flight passing ov over so many foreign countries were worked out to the satisfaction of the nations concerned.

But the real spade work for the personnel of the flight was the research necessary to locate all of the maps of the proposed route, ascertain probable weather conditions for every day and mile of the flight, and investigate the conditions of fields where the 16-ton Bombers were to land.

To the eye of a casual observer, the most striking of all the preparations was the calm and unruffled manner in which the airplane mechanics and radio technicians went about their tasks of adjusting, cleaning and inspecting every inch of the sky dreadnaughts in which they were to entrust their lives over the Caribbean Sea and the Andes Mountains. It was all in the day's work to these men.

And they were not especially picked for this flight. Only the regularly assigned combat crews were ordered on the flight.

At last everything was in readiness for the take-off.

On a bitingly cold Tuesday morning, at 9:00 o'clock, February 15th, to be exact, the last of the six Boeings lifted gracefully into the air headed south for Miami. This departure was an example of all of the other take-offs of the flight. They were two minutes apart, the flight commander being the first to push the nose of his flying fortress into the cold ozone. With him he carried the greetings of President Franklin D. Roosevelt to the President-elect of the Argentine, Roberto Ortiz.

As the half dozen planes roared toward warmer climes they refrained from flying formation. Each was on his own in the air. This was part of Colonel Olds' policy of trusting the navigator in each "Flying Fortress" to plot the correct courses. Much credit is due the flight commander for placing such implicit trust

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in each combat team, for, after all, he was "holding the sack" in the event that anyone of the sextet failed to reach its appointed rendezvous.

As GHQ Air Force observers pointed out after the return to Langley Field, it would have been easy enough and quite proper for Colonel Olds to "herd" all of the planes together and lead them to Buenos Aires under the guidance of someone whom he felt to be the outstanding navigator of the entire group of 25 officers.

But he did not take this obviously easier course. His confidence, it appears, was based on his knowledge that his navigators - all of them - were capable of finding their way round two continents and a couple of oceans by the application of the exact science of air navigation - not by the law of probabilities. In this case his faith in his navigators was justified - the flight was completely successful.

With all 24 "Cyclones" purring a sweet harmony, the flight dropped into the Miami airport five hours and 45 minutes after departing from Langley Field.

Little time was available to partake of the pleasures of the Florida resort, as the mechanics again worked carefully over the ships from stem to stern, and the navigators and pilots scrutinized maps and weather reports.

Seven minutes before one o'clock on the morning of the 16th, the flight again took to the air, at intervals of two minutes. Colonel Olds hoped to reach Lima, Peru, non-stop, but decided to postpone his final decision until the arrival of the flight over Panama. It was the hurricane season, and last reports had indicated bad weather in the vicinity of the equator. The planes flew the 1100 miles between Miami and Panama alone, with orders to assemble over Colon.

The tropical sun was beating down with its customary intensity when Colonel Olds assembled his Good Will flyers over Colon at 7:07 a.m., six hours and 14 minutes after leaving Miami.

The decision with which Colonel Olds was now faced was not an easy one. Bad weather was still reported at the Equator with the conditions beyond very uncertain. Weighing all factors carefully, he radioed his momentus decision to the other planes in the form of the terse order: "Continue to Lima." His decision was not final, however - so he told us later. He planned to fly for four hours more, then, if weather prevented further progress, to return and land in Panama.

Slow progress was made for several hours as they swung down the South American coast. A stiff wind made the going heavy. Average speed of the "Fortresses" fell to 125 knots per hour. Back at Langley Field a worried group of Second Wing Staff officers, headed by General Brant, dug their computing instruments out of drawers. They set to work calculating the chances of the sextet of four-motored aircraft making the Lima airport. Emergency airport facilities, reserve fuel, and other factors entered into the discussion as faces grew longer.

But confidence was restored as the next hourly report depicted the sturdy Boeings plugging along at 150 knots, a safe speed.

On board the planes preparations were being made to combat an equatorial storm which finally made its appearance off Guayquil, Ecuador. This is where the reserve horses of the "Cyclones" came in very conveniently for the 49 air argonauts. Effortlessly, the six Boeings, each still flying alone but in radio communication with each other, rose higher and higher above the storm center until the altimeters read 23,000 feet. With occasional inhalations of the precious oxygen, they rode in and out of the top of the storm for 300 miles.

They passed the equator at 10:50 a.m., dipping their planes in a solemn salute. Neptunic ceremonies were omitted.

As the planes flew toward the appointed rendezvous at Point Salinas, just north of Lima, thousands of Peruvian officials and aviation fans at the Limatambo airport were eagerly awaiting the visitors from the Big neighbor of the North. Where frightened civilians in other countries during the past quarter century scanned the skies with dread, these friendly people were eagerly awaiting these Ambassadors of Good Will, who were bringing not bombs but messages of Friendship. Landing at 4:25 p.m., the six planes made the record non-stop flight of 2695 miles in 15 hours and 32 minutes.

Colonel Olds, fulfilling his duty as the spokesman and leader of the flight, spoke briefly at 5:00 p.m. to the people of the United States through a nation-wide radio hookup. Needless to say, the radio set in Second Wing Headquarters and those in the homes of the flyers' loved ones were turned on "full blast" to hear the gallant leader's account of the second leg of his already historic flight.

Refueling and servicing the giant airplanes required a seven-hour layover. Members of the flight, on their return to Langley Field, were eloquent in their praise of the help given by the employees of the Pan-American Grace Airways.

At 11:05 P.M., the crews of five of the "Fortresses" loaded into their planes for the take-off for their destination, Buenos Aires. Delayed on the ground with a defective propeller was Major Meloy and his crew, but he promised to get into Buenos Aires in plenty of time for the inaugural ceremonies.

Still flying two minutes apart, the quintet of B-17's headed for Santiago, where it was planned to stop of weather conditions (Continued on Page 18)

U. S. ARMY WEATHER SERVICE

By Sergeant Edward D. Steel, Air Corps

Formerly all weather information was compiled and distributed solely by the U.S. Weather Bureau. Although our Artillery Branches have used certain phases of meteorology, or weather, for some years, it was not until the introduction of the airplane as a combat arm that the Army became acutely conscious of the considerable importance of weather information and forecasting. Troops on the march, guns in action, etc., are not particularly concerned with ceilings, visibilities, etc., for such items do not materially affect their missions, but to the pilot of either military or commercial airplanes, such information is of prime importance, for upon it depends not only the success of his mission - but his very life.

The weather station at Langley Field, Va., was first established twenty years ago. Since that time it has been in continuous operation and working hand in hand with the Weather Bureau and the Department of Commerce. The Signal Corps originally controlled and administered the weather functions in the Army, and its work deserves the maximum commendation, for each year it materially increased the efficiency of the Army Weather Service. However, the particular needs of our Air Corps for certain weather information made it advisable that the Air Corps take over the Weather Service. Hence, since July, 1937, the Army Weather Service has been under the control of the Chief of the Air Corps.

Under the Signal Corps, observers and forecasters were trained at Fort Monmouth, New Jersey. Under the present system, observers are trained at the individual stations, and through their own study. Also, a highly efficient forecasters' school has been established at Patterson Field, Ohio, and it is known as the "Air Corps Weather School." At this school the student forecaster is given work in the theory of air mass analysis, in the use of his theory practically, and in the subjects which make a necessary background for a thorough understanding of the subject, viz: mathematics, trigonometry, physics and calculus. When he has completed this course, which normally requires five months of intensive study, he is then assigned to a weather station, where he practices the application of the rules and theories which he has learned. A good deal of practical experience is needed, even after finishing the school, for a good forecaster must not only be well grounded in theory, but he must have sufficient practical knowledge to apply his theoretical knowledge efficiently.

The tools of the forecaster are actually measurements of the elements, temperature, dew-point, pressure tendencies, wind directions and speed, visibilities, upper air winds, and humidity. Four or more surface synoptic maps are constructed daily, and in addition several different types of stability diagrams are plotted. Most of this information is received by teletype and radio, and by following the developments 24 hours daily, it is possible to advise the pilots and flight commanders as to what conditions are to be expected in any or all parts of the country.

This Air Corps service differs from that required of the airline meteorologist, inasmuch as the airline meteorologist knows in advance the schedules, routes and type of airplane which follows a designated radio beacon course. Military aircraft vary widely in type and equipment, and fly without prearranged schedules in many instances. In this respect the weather requirements differ. Poor weather, although always a hazard, may not cause a cancellation of a clearance for a single airplane, whereas such weather would undoubtedly be dangerous for formation flying. Some flights can be accomplished non-stop, over the top of the overcast, if sufficient ceiling and visibility exist, or will exist, at destination. Other flights, limited by gasoline supply or inadequate blind flying instruments, must of necessity be made under the clouds. Occasionally, the pilot's experience and the available navigational facilities determine the advisability of issuing a clearance.

For long distance flights a suitable route must be chosen to assure a safe completion of the flight. As mentioned before, a flight plan for one mission may not be adaptable to another, even if the destination and time of departure are the same. Refueling stations and emergency landing field, plus an alternate route, are some of the safety factors to be considered.

During the past year, a forecaster from the weather station, who draws maps and makes forecasts while in the air, has accompanied the "Flying Fortresses" on various long range missions. In periods of flight up to 24 hours, many changes may take place in the weather situation; the flight forecaster follows these changes continuously and advises the pilot or flight commander of any developments anticipated.

Equipment tests and maneuvers generally require a base set up away from the home airport. A complete mobile weather station is part of the temporary base; this mobile station makes it possible to compile complete information first hand, rather than rely entirely upon radio or

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ARGENTINE FLIGHT PROVES EXCELLENT STATE OF TRAINING IN THE GHQ AIR FORCE

In congratulating Lieut. Colonel Robert Olds and his band of 48 officers and enlisted men, when they completed their round trip journey between Langley Field, Va., and Buenos Aires, Argentina, Major General Frank M. Andrews, commander of the GHQ Air Force, expressed his gratification on the success of the flight and upon the excellent account they gave of themselves as Ambassadors of Good Will. "You have added another accomplishment to the long roll of 'Things the Army Does Besides Fight,'" the General stated.

High officials of the GHQ Air Force pointed out that the clocklike precision with which the tour of the six "Flying Fortresses" to South America and return was executed is proof of the high standard of training existing in all units of the GHQ Air Force.

"This was not a stunt flight performed by specially selected men," stated General Andrews. He went on to explain that every airplane was manned by its regularly assigned crew; that no substitution of "specially qualified" men were made, and that every "Flying Fortress" in the GHQ Air Force has a regular crew who could have done the same thing in the same creditable manner as did the six crews assigned to the task.

A noteworthy feature in connection with the execution of this flight is the fact that every airplane was placed "on its own" on every leg of the flight. It was routine procedure for airplanes to take off two minutes apart and proceed alone to an "assembly point" some thousand miles away. For example, on the Miami-Lima leg, the first assembly after leaving Miami was over the Panama Canal at Colon. Airplanes were in radio communication with each other but were approximately six miles apart, beyond visual distance.

The purpose of separating airplanes in this manner was to afford the training to every airplane crew which in formation flying is experienced only by the leading airplane. The precision and dispatch with which the appointed assemblies were invariably made bear mute evidence of the excellence of that training.

This efficiency, as proven by the South American flight completed on the afternoon of February 27th, was not arrived at overnight. When the GHQ Air Force came into being in March, 1935, with General Andrews as its first commander, one of its first objectives was the attaining of an ideal combat crew.

As General Andrews planned it, this crew would be assigned regular positions in their own airplane in exactly the same manner as a naval vessel has its Captain, its navigator, engineer, gunnery officer, etc. But tremendous obstacles had to be overcome.

Under the system then in effect, every enlisted man in the Air Corps, with few exceptions, was required to perform guard duty and other details around an air base. When he was away from the hangar someone else stepped in to work on his plane. Sometimes enlisted men worked on a different airplane every time they reported to their hangar.

Insofar as the ships' officers were concerned, no stabilized organization existed. Airplanes were pooled, and the training of officers as team mates in the air was accomplished only through haphazard association as flying mates. For example, Captain Jones and Lieut. Smith would fly together in the morning in airplane No. 10; in the afternoon Captain Jones and someone else would fly together in No. 2.

General Andrews saw that it was necessary to change this system if efficiency was to be increased, and so he coined the term "combat team;" a term which since 1936 has been used in connection with tactical training more than any other. In that year General Andrews insisted on rigid adherence to the combat team idea: that only the regularly assigned members of a crew would fly in an airplane; that each man would be assigned a particular task, and that all flying in that airplane would be in connection with training of that crew.

Many obstacles had to be overcome to put this theory into practice. Rearrangement of the entire organization of units was necessary in order to relieve the members of combat crews of outside duties. This was strenuously opposed in the initial stages by many officers whose interests conflicted with this arrangement, however, and sometimes with what seemed to others as questionable wisdom. General Andrews, however, inflexibly stood pat on combat team training. Growing pains gradually passed, and the new organization was well on its way.

Within a year the increased efficiency of units in the maintenance of their equipment, and in the endurance, navigational skill, and marksmanship of personnel became evident through the increased performance of the airplanes, the excellence of the gunnery and bombing scores, and in the reduced accident rate despite routine flying in all sorts of weather.

The attention of the public has been attracted to the high efficiency of the army airmen by press comments from time to time on such accomplishments as surprisingly long "routine" flights, transcontinental flights in which new records have been established, and, finally, on this flight to South America.

All of these improvements and accomplishments pay great tribute to the ex-

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FIELD UNIT FOR TESTING AIRPLANE INSTRUMENTS
By the Materiel Division Correspondent

In the past when a pilot upon landing reported faulty instrument operation, there was no recourse but to remove the instrument from the airplane and take it to a base where its operation could be checked. With the increase in the number of instruments necessary for the flying of large aircraft, it was recognized that this was a condition which needed remedying. Suggestion was made to the Materiel Division for the development of an instrument testing unit which could be brought out to the airplane in the field for the purpose of checking the instruments in the airplane without removing them.

Work on such a unit was started about two years ago. Engineers in charge of the development began working from scratch, and the present portable unit for testing airplane instruments and equipment in the field is the result.

This unit consists essentially of a cabinet approximately 30 inches long, 20 inches wide, and 32 inches high, mounted upon three wheels for portability. The equipment installed in the cabinet consists of a Type B-2A vacuum pump and tachometer drive unit operated by a combination 110-volt AC-DC motor. The vacuum pump provides for either vacuum or pressure which, distributed through suitable lines, oil separators, air tank, and control valves, permits the operator to select either suction from the intake side of the vacuum pump when checking vacuum-operated instruments, or pressure from the exhaust side of the vacuum pump when checking pressure-operated instruments. A clutch in the tachometer drive unit enables the operator to engage either the vacuum pump or tachometer mechanism. A reel of electric cable approximately 100 feet long is provided in the cabinet for plugging in the motors to either the 110-volt AC power source in the hangars or the 110-volt DC electric field power plant. A switch located on the instrument board prevents the application of the AC current to the DC motor or vice versa.

Master instruments, together with the necessary control valves, are mounted on a panel in the top of the cabinet. Individual items of test equipment consisting of a thermocouple tester, pressure gauge tester, voltmeter tester, and altimeter tester are mounted in brackets near the panel. These are easily removable for checking similar equipment in the airplane. Tachometer shafts, rubber hose, and suitable connections are contained in the lower part of the cabinet. These also are used for checking instruments in the airplane.

As at present designed, the field test unit is capable of checking for accuracy the following: Air-speed indicator, bank and turn indicator, flight indicator (horizon), fuel pressure gauge, manifold pressure gauge, oil pressure gauge, altimeter, rate of climb indicator, tachometer (mechanical), tachometer (electrical), thermocouple indicator, turn indicator (directional gyro), pitot static line, vacuum lines, and voltmeter. Plans are at present under way to include in the cabinet facilities for testing the automatic pilot also.

The unit weighs approximately 300 pounds, and because of its compact size it will be possible to transport it from field to field by cargo airplane.

In the future, when a pilot upon landing complains that his altimeter or air-speed indicator is malfunctioning, it will no longer be necessary to remove these instruments from the airplane for checking. Instead, the field test unit will be wheeled up to the airplane and checking may be started immediately. Through this method, not only can it be learned whether or not the pilot's impressions were accurate, but in the majority of cases a possible adjustment of the instrument may be accomplished without removing it from the airplane.

It is quite obvious that such a system will definitely add to the life of the instrument by eliminating the wear and tear incident to the removal of the instrument from the airplane, the handling, packing and shipping it must undergo in order to route it to a repair base and return. The set will also be exceedingly useful for the 40-hour inspection service, as well as for any intermediate inspections deemed advisable.

Reports from stations where the field testing set has been located for service test purposes are most enthusiastic, and order for a large number for testing at a greater number of fields is contemplated.

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U. S. Army Weather Service
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teletype communications from the home station. Before each mission the commander of the flight or the commander of the base confers with the meteorologist, receives an estimate of the weather situation and bases his decision on the information received.

Although man will never be able to control the elements, and to date made no steps in the synthetic duplication of any of them on a large scale, yet he has made amazing progress in the interpretation of the observed elements. Future years, with the constant research and development of instruments for observation purposes, should serve to strengthen the importance of meteorology not only to the Air Corps, but to the people as a whole.

26TH ATTACK SQD. RECEIVES EFFICIENCY AWARD

The annual award for the tactical squadron having the highest military efficiency during the year 1936-37 was given to the 26th Attack Squadron, which is attached to the 18th Pursuit Group and stationed at Wheeler Field, Schofield Barracks, T.H. The award is based on disciplinary record, neatness of barracks and area, appearance of personnel, efficiency of tactical missions, maintenance of aircraft, and completion of the training directive.

Major General C.D. Herron, U.S. Army, Commanding General of the Hawaiian Division, Schofield Barracks, T.H., presented the streamer to Major G.A. McHenry, Commander of the 26th Squadron, during an impressive ceremony at Wheeler Field on January 18, 1938.

In view of the high standards of training and administrative efficiency demonstrated by all the Squadrons within the Group, the 26th Squadron is extremely gratified at having been awarded the streamer.

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FLYING BOAT FOR 19TH PURSUIT SQUADRON

The 19th Pursuit Squadron at Wheeler Field, T.H., recently received its new flying boat, known to all pilots as "The Rabbi," and the rest of the Air Corps as S-43.

This baby clipper came to Wheeler Field from Hamilton Field, Calif., on August 16th, last, at which time it was assigned to the 75th Service Squadron. On its first flight around the island, the honors went to Lieut. "Ken" Rogers, "Arch" Kelley, "Happy" Hopwood, and Staff Sgt. McCauley as its pilots and navigators. This flight occurred on December 14th, and it is reported that this ship is more than capable of fulfilling the requirements of an offshore patrol boat to accompany the P-26's and new Attack ships.

This is the same type of Sikorsky that is being used commercially by the Inter-Island Airways with much success. For the Airways use it has been licensed to carry 22 passengers and two pilots. Thus it more than fulfills the Army's requirement for storage space. It is felt that it will prove very satisfactory in cooperating with the faster and more powerful Pursuit ships being received.

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NAVIGATION TRAINING IN 50TH OBS. SQUADRON

Officers of the 50th Observation Squadron, stationed at Luke Field, T.H., are now in the process of becoming full fledged navigators. The practicability of trying to carry on such a school along with squadron duties and squadron training is a point yet to be proved. The Squadron, however, has a class enrollment of six officers, namely: Captain Homer W. Ferguson, 1st Lieuts. Leland S. Stranathan and George F. Kehoe, Air Corps; 1st Lieut. Edmund T. Gorman, and 2nd Lieuts. James C. Cochran and Louis M. Gregory, Air Reserve.

Second Lieuts. A.D. Olson and John L. DuFrane, Jr., Air Reserve, are the instructors who are attempting to transfer the recent knowledge gained in the 18th Wing Navigation School to the Squadron School.

To date, most of the ground work in Dead Reckoning has been completed, and the first flying mission has been accomplished by each student in the class. The results look promising.

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23RD BOMBARDMENT SQUADRON ACTIVITIES

Since the first of the year, the 23rd Bombardment Squadron, Luke Field, T.H., has been devoting most of its flying time to bombing missions. With exclusive use of the new floating target of the 5th Composite Group, this Squadron has been able to carry on quite a bit of intensive bombing training.

Frequent mass flights to Burns Field, Kauai, for the purpose of ferrying equipment and personnel to the crew working on the C-33, have also kept the Squadron personnel busy.

The routine towing missions for the anti-aircraft batteries located at Fort Kamehameha are keeping one Keystone on the go every day. At this writing no actual firing has been done, but the batteries are soon scheduled to swing into action.

Many members of this Squadron are waiting to greet old friends in the 31st Bombardment Squadron upon its arrival in the Hawaiian Department.

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RESERVE OFFICERS VISIT MITCHEL FIELD

Thirty-five ground arm Reserve officers were guests of the 97th Observation Squadron (Corps & Army) at Mitchel Field, N.Y., on February 5th.

The visiting Reserve officers completed a two and one-half hour tour of this Air Base, under the guidance of Squadron officers, and attended ten demonstrations and short talks on the outstanding phases of Air Corps types of work and materiel. The O-46A, B-10B, B-18 and S-43 airplanes were on display. Visitors were escorted through the hangars of the 97th Squadron (Corps & Army) and the 18th Reconnaissance Squadron (GHQ Air Force), as well as the Base Parachute Department, 97th Photo laboratory, and the Link Trainer Department.

The group consisted of Reserve officers on inactive status assigned to the First Division. The visit was in line with the desire of the War Department

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GRADUATION OF STUDENTS FROM ADVANCED FLYING SCHOOL

On Wednesday, February 16th, Class 38-A, composed of five Regular Army officers, one foreign officer (Brazilian Army), and fifty-five Flying Cadets finished the course of instruction and were presented certificates of graduation from the Air Corps Advanced Flying School, Kelly Field, Texas.

The ceremonies of the day began with an inspection of the airplanes and crews at 8:00 a.m., following which airplanes began to take off at 9:10 a.m. Effecting rendezvous at Kelly Field No. 2, airplanes began passing in review at 9:30. The graduation review flight was composed of formations of O-25's, BT-8's, BT-9's, A-12's, A-17's and P-12's. At 10:45, the graduation exercises were held at the Post Theater, with Colonel William B. Tuttle, Engineer Reserve, delivering the address and presenting certificates to the graduates.

The student officers comprising this graduating class were Captain Clovis M. Travassos, of the Brazilian Army; 2nd Lieuts. Gordon H. Austin, Field Artillery; German P. Culver, Infantry, James R. Gunn, Jackson H. Gray and Harry R. Melton, Jr., Cavalry, U.S. Army. Lieut. Culver graduated from the U.S. Military, West Point, N.Y., on June 12, 1935, and the remaining four second lieutenants on June 12th of the following year. These five officers were transferred to the Air Corps on January 24, 1938, and assigned to duty, as follows:

Lieuts. Culver, Gray and Gunn to the Philippines, Lieut. Austin to Bolling Field, D.C., and Lieut. Melton to Langley Field, Va.

All of the Flying Cadets who graduated in this class accepted commissions as second lieutenants in the Air Reserve, and were assigned to Randolph Field for temporary duty pending the receipt of orders for their departure to their new stations.

Following the graduation exercises, the students entertained the post personnel at a reception at the Officers' Mess.

The Flying Cadet graduates are enumerated below, as follows:

Garman, Ralph Sheldon	Avenal, Calif.
Kofahl, Harold Eugene	Fellowes, Calif.
Kearby, Neel Earnest	Los Angeles, Calif.
Reedy, Allen Dale	Ontario, Calif.
Pardee, Elliott Thomas	San Francisco, Calif.
Bowen, John C.	Santa Barbara, Calif.
Maupin, John C.	Santa Barbara, Calif.
Edmundson, James V.	Santa Monica, Calif.
Hays, MacDonald Herbert	Denver, Colo.
Heintz, Adam Joseph	Greeley, Colo.
Breathitt, James III	Washington, D.C.
Tibbetts, Paul Warfield,Jr.	Miami, Fla.
McPherson, Clarence Edward	Moscow, Idaho
Dick, Richard D.	Chicago, Ill.
Kummrow, Robert A.	Morrison, Ill.
Feallock, William John II	Michigan City, Ind.
Wanamaker, Martin Eugene	Barnes, Kans.
Woltz, Eugene Carl	Wichita, Kans.
Sturges, Claude C., Jr.	Shreveport, La.
Clark, William Coombs	Sangerville, Me.
Proxmire, Theodore S., Jr.	East Boston, Mass.
Ames, Richard Austin	Lynn, Mass.
Marks, Magnus B.	Minneapolis, Minn.
Martin, Kenneth Ray	Kansas City, Mo.
Pusey, Ralph Llewelyn	Kansas City, Mo.
Beverly, Ernest Haywood	Laurinburg, N.C.
Coupland, Don	Kenmore, N.Y.
Zipp, Marvin Stoll	Rockville Center, N.Y.
Watt, James Richard	Canton, Ohio
Brannon, Dale Donald	Columbus, Ohio
Wasem, Clinton Curtis	Columbus, Ohio
Mason, Robert Julian	Norman, Okla.
French, Donald James	Eugene, Ore.
Emmens, Robert Gabel	Medford, Ore.
West, Graham Warren	Portland, Ore.
Anderson, Dale L.	West Fittsburgh, Pa.
Parker, Frank C., Jr.	Norristown, Pa.
McNickle, Melvin Francis	Vermillion, S.D.
MacNicol, George Mabin	Memphis, Tenn.
Armstrong, Hal Burrage,Jr.	Austin, Texas
Ranck, Nathan Hoover	Austin, Texas
Taylor, Ray David	Brownwood, Texas
Bailey, J.C.	Dumont, Texas
Korges, Woodrow Wilson	Kingsville, Texas
McClure, Hamilton	Lubbock, Texas
Atkinson, Gwen Grover	Lufkin, Texas
Rison, Whitmell Tompkins	Chatham, Va.
Haskett, James Warren	Norfolk, Va.
Tobler, Jesse Alton	Bremerton, Wash.
Greene, George B., Jr.	Seattle, Wash.
Cowles, Ned Alexander	Tacoma, Wash.
Marcy, Joseph Coe	Yakima, Wash.
Keeffe, Harold Michael	Madison, Wis.
Koncpacki, Hubert J.	Manitowoc, Wis.
Richardson, Wayne K.	Milwaukee, Wis.

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THE MOVE TO DENVER, COLO.

After a long month's wait, the final orders for moving the Departments of Photography and Armament from Chanute Field, Rantoul, Ill., to Denver, Colo., arrived at 8:00 a.m., February 7th. Three days later, the freight and passenger trains were on the way to Denver.

Says the News Letter Correspondent: 'We remarked with a smile that upon loading the freight train this time (the second within five weeks) one less freight car was needed - there's nothing like practice.

'Then, too, there was some argument as to who was happier when the trains left - the Denver-bound people or the Chanute Field garrison.

'Hardly had the excitement of the move died down when a long expected epidemic broke out - long expected because of the crowded conditions existing here for the last month. The first case of acute septic tonsilitis was reported on the afternoon of February 12th. By noon the next day, the small Post Hospital was filled.

"CaptainsHeine, Cameron and Olson, Medical Corps, foreseeing such an event, took strenuous action. The offices and classrooms of Hangar 1?

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THE NEW MARCH CLASS AT THE PRIMARY FLYING SCHOOL

In the issue of the Air Corps News Letter of February 1, 1938, there were listed 121 students (100 candidates from civil life and 21 enlisted men of the Regular Army) who qualified for appointment as Flying Cadet and comprised the class up to that time slated to begin the course of training at the Air Corps Primary Flying School at Randolph Field, Texas, beginning March 1, 1938.

Since that time, six of the civilian candidates have for various reasons declined the Flying Cadet appointment proffered them, while 67 civilian candidates and 7 enlisted men of the Regular Army were added to the list, so that at this writing the new class numbers a total of 189 students (161 candidates from civil life and 28 enlisted men of the Regular Army). The probability is that more students will be added to the list before the class actually begins training.

Candidates previously listed who declined appointment are enumerated below, as follows:

Hornsby, Claude E., Jr.	Centerville, Ala.
McGaughey, Samuel K.	Roseburg, Ore.
Ireland, Loren E.	Salem, Ore.
Reed, Charles W.	Raymond, Wash.
Moore, Kenneth C.	Clarksburg, W. Va.
Lippucci, Fred H.	Morgantown, W. Va.

The new students added to the class are listed below, as follows:

Gray, Leon W.	Tucson, Ariz.
Torre-Bueno, Henry E.C.	Tucson, Ariz.
Golusha, Harry Leslie	Little Rock, Ark.
Edwards, Albert Benton,Jr.	Berkeley, Calif.
McCauley, Clarence V.	San Francisco, Calif.
Czajkowski, John T.	East Hartford, Conn.
Yarbrough, Eugene T.	Washington, D. C.
Gaines, Alvin M.	Atlanta, Ga.
Holbrook, Thomas H.	Commerce, Ga.
Babb, Harold T.	Dalton, Ga.
Clavelli, Oscar J.	Chicago, Ill.
Gunzburger, Paul	Chicago, Ill.
Jarek, Frank W.	Chicago, Ill.
Harrison, Franciscus R.	Danville, Ill.
Shamel, Joseph Woodrow	Urbana, Ill.
Price, Bruce Burns	Chicago, Ill.
Thornbrough, George Wayne	Oreana, Idaho
Crouch, R.E.	Bloomfield, Ky.
Barrow, Leonard J., Jr.	New Iberia, La.
McKay, Curtis Andrew	Bethesda, Md.
Reed, Elsdon Horace	Boston, Mass.
Schofield, Parker Fall	Boston, Mass.
Galasso, Louis Francis	East Boston, Mass.
Sorrenti, Joseph Elliott	Everett, Mass.
George, William S., Jr.	Jamaica Plain, Mass.
Butters, George W., Jr.	Lexington, Mass.
Laroche, Lawrence R.	Worcester, Mass.
Slaght, William H.	Detroit, Mich.
Van Auken, Robert D.	Detroit, Mich.
Beaver, John Donald	East Lansing, Mich.
Davenport, Jay Edwin	East Lansing, Mich.
Kregal, John William	St. Paul, Minn.
McKee, Seth Jefferson	Illmo, Mo.
Hagemann, Werner G., Jr.	Kansas City, Mo.
Nelles, George S.	Kansas City, Mo.
Bloszies, Raymond Fred	Omaha, Neb.
Saunders, Jack Wm.	Athens, N.Y.
Rudell, Raymond Frank	Buffalo, N.Y.
Doerr, John J.	Margaretville, N. Y.
Jensen, Dovre Christian	New York, N.Y.
Prieston, George E.	New York, N.Y.
Rouse, John Albert	Rochester, N.Y.
McLean, Frederick H.	Lenoir, N.C.
Browneville, John L.	Boxley, Ohio
Burkert, Donald D.	Columbus, Ohio
Croysdale, William E.	Columbus, Ohio
DeBolt, Arthur R.	Columbus, Ohio
Gould, Campbell H.	Columbus, Ohio
Dick, Newton R.	Tulsa, Okla.
Giannatti, James	Uniontown, Pa.
Murphy, Richard Francis	Providence, R.I.
Dean, Samuel C.	Anderson, S.C.
Sherman, Fred	Chattanooga, Tenn.
Morgan, Maurice Allen	Austin, Texas
Stobaugh, Wiley J.	Bellinger, Texas
Smith, Joseph C.	Brownsville, Texas
Crabtree, Martin Perdue	Decatur, Texas
Nelson, Boyce M.	Lubbock, Texas
Hunter, James C.	Nixon, Texas
Strickland, Eugene Lee	San Angelo, Texas
Barksdale, William S., Jr.	Randolph, Va.
Grotte, Helmer Martin	Seattle, Wash.
McDermid, Glenn A.	Seattle, Wash.
Monyer, William W.	Seattle, Wash.
Reppert, Howard Winston	Buckhannon, W.Va.
Whiteman, Harold J.	Salem, W.Va.

Flying Cadets - Enlisted Men

Privates

Porter, Charles F.	Urbana, Ill.
53rd School Squadron, Randolph Field, Texas	
Maynard, Joe Edward	Pikeville, Ky.
A.C. Det., Schoen Field, Ft.Benj.Harrison,Ind.	
Towner, Heber F.	Santa Ana, Calif.
97th Obs. Squadron, Mitchel Field, N.Y.	
LeBourveau, Warren	Flushing, N.Y.
D.E.M.L., Governors Island, New York.	
Davie, Richard E.	Butler, Okla.
46th School Squadron, Randolph Field, Texas	
Ellison, Holden F.	Altoona, Pa.
Hq. and Hq. Squadron, Barksdale Field, La.	
Taylor, Robert W.	Newport, Tenn.
2nd Weather Sqdn., Fort Bragg, N.C.	

In the first group of selected candidates for Flying Cadet appointment, West Virginia led the various other States in the matter of representation of native sons in the new class with 21, followed by Texas with 15 and California with 11. With the addition to the class of the 74 students above enumerated, the delegation from West Virginia remains the same numerically, but by virtue of gaining 7 students in the later group, the delegation from Texas has been raised to 22. The Lone Star State has thus wrested the lead from West Virginia. California is represented by 14 students, New York and Illinois with 11 each, and Massachusetts with 9.

Among the various cities represented in the new class, Chicago has the largest delegation, with 6 students, followed by Columbus, Ohio, with four, and Seattle, Wash.; Tucson, Ariz., and Boston, Mass., with 3 each.

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Master Sergeant Carl T. Hale, Air Corps, was placed on the retired list at March Field, Calif., Feb. 28, 1938, after 30 years' service.

A STEREOSCOPIC VIEW OF POWER PLANT DEVELOPMENT AT WRIGHT FIELD

By a Power Plant Engineer

The year 1937 found the Power Plant at the Air Corps Materiel Division busy with transition from Little Engines to Big Engines. Keeping pace with the ever-increasing demand, our test equipment went "over the hump" of 1,000 horsepower.

When our dynamometer laboratory was originally set up, a 500-horsepower engine was a big one, and engineers in charge more than doubled the capacity of the dynamometers as a leeway for expansion. To give them credit where credit is due, no one else foresaw the tremendous expansion that has taken place in the past few years.

We are now looking again into the crystal ball, but instead of multiplying our power absorption over current engine power by two, we are multiplying it by three. Current engines are in the 1,000-horsepower class. Our new dynamometers are capable of absorbing some 3,000 horsepower. This has been made possible by installation of new water brakes. Incidentally, this is the last expansion which can be accomplished in our present buildings. They are bulging at the sides now.

Increase of the power absorption characteristics is merely part of the story. Related accessories come in for their share of expense. Soundproofed test or instrument rooms adjoining the several dynamometers have occupied our electrical engineers for quite some time. Anyone who has ever experienced standing beside a 1,000-horsepower engine on the block can easily comprehend the necessity of soundproofing. Without it our operators were about ready to "go over the hill" or be placed in a nice quiet room with a southern exposure.

Concurrently with increase of power comes increase of speed, and to simulate air flow over cylinders of air (gas) cooled engines, the capacity and efficiency of our blower fans had to be more than doubled. We don't like to quote figures, but we believe we could blow your hat off. Since the above changes are fast nearing completion, our Air Corps friends are invited to pay us a visit, to see firsthand the things we humbly try to explain in writing.

Knowing full well that the pilot abhors the multiplicity of gadgets in the cockpit, we have been attempting to reduce our share of them. It seems that F_c still equals MA and KE still equals $1/2MV^2$ or, in plain English, everything we get we have to pay for in some way. An automatic tank selector is being developed. We haven't stopped guessing about automatic mixture controls, supercharger regulators, improvements in pumps and other accessories to help the tactical pilot who, with instruments, a million or two radio switches, landing gear, flaps, lights blinking, vibrators buzzing, needs no exercises to stimulate mental alertness while flying. Bear with us - some day our Utopia will be just a plain old throttle which may be bent forward and wrapped around another gadget put there because someone thought it would be a good idea.

Liquid-cooled development has culminated in the V-1710 Allison engine passing the type test at 1,000 horsepower. This engine is to undergo extensive tests in the XFM-1 and P-37 airplanes, and it is believed will carry its share of airplanes through the air in the future.

The R-2600 (Wright) engine has recently passed a very creditable type test at 1500 take-off horsepower. Pratt & Whitney is keeping pace with the 1830 and 2180 series.

All in all, we feel that the past year has brought the service an increase in engine performance and reliability, in keeping with our desire to give the tactical pilot his power when, how, and in the amount he desires, and to permit him to "fly through the air with the greatest of ease" as long as his gas supply holds out.

Who said "What about spark plugs?" We still admit the plug situation is a "horse on the house," but we, with the aid of the industry, are doing our best. Have you any bright ideas?

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FUEL MIXTURE INDICATORS

Service test of the Type A-1 fuel mixture indicator has demonstrated its value, when properly installed and serviced, as a means of adjusting mixture controls to prevent engine overheating and wastage of fuel. It was recommended that an instrument for two-engine use and one for single-engine use, similar in design to the Type A-1 fuel mixture indicator but having increased scale ranges, be standardized.

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Reserve Officers Visit Mitchel Field

(Continued from Page 6).

"to establish the sound mutual understanding which will lead to intelligent tactical cooperation between ground and air officers," as well as to enable Reserve officers of all arms to keep informed of the present changes and rapid progress made in Air Corps tactical materiels and procedure.

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Effective February 1, 1938, Colonel Jacob H. Rudolph, Air Corps, who up to that time held the temporary rank of Colonel, was promoted to the permanent rank of Colonel.

V-7648, A.C.

STRONG WIND STIRS UP MUCH ACTIVITY

On the afternoon of February 9th, a call for "everybody down to the hangar" was sounded. A C-33 Transport was in danger of being blown away. It had broken its moorings.

"The first view which caught our attention as we came on the field," says the News Letter Correspondent, "was one for which a cameraman would give his right arm. The C-33 was mired in the gumbo and a swarm of men were tying ropes to its wings and wheels. A wind of gale proportions mixed with rain was blowing. The gauge in the Metro station registered 52 miles when it broke. It is estimated that a sixty miles per hour wind was blowing at the time.

"Colonel H.A. Strauss, Air Corps, and Lieut. L.L. Sailor, Air Reserve, pilots, from the Rockwell Air Depot, had flown in with a cargo. When it started to rain, the C-33 was staked down. Then a wind sprang up. From the time the alert crew saw the plane break its moorings and take off until it was safe in the hangar there wasn't a dull moment. Happy smiles suffused the faces of Colonel Strauss and Major H. S. Kenyon, Commanding Officer of Moffett Field, as the big doors finally began to close on the silver ship.

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COMMERCIAL FLYING LURES AIR RESERVE PILOT

Touching on the departure of an Air Reserve pilot from Mitchel Field, N.Y., to accept a position in commercial aviation, the News Letter Correspondent states:

"The 97th Observation Squadron (C & A) bids farewell and good wishes to 2nd Lt. R.W. Catlin, Air Reserve, who has reverted to inactive status insofar as the Army is concerned and to the obviously more enticing status of a commercial airline pilot. It is presumed the towing of an anti-aircraft target with a Douglas O-46A over Long Island is less inviting than turning a Douglas over to the "Iron Mike" from coast to coast, and, of course, the Air Corps hasn't yet adopted the hostesses as standard equipment!!!"

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Four B-18's settled down on Randolph Field, Texas, on February 17th, after experiencing bad weather during the "hop" from March Field, Calif. The Army airmen piloting these guge ships were participating in a navigation flight to St. Petersburg, Fla., and return. Included in the flight personnel were Lieuts. John T. Murtha,(commanding) Thomas R. Lynch, Harold J. Huglin and Robert D. Johnston. The flyers expected to navigate one way by day and the other by night.

PURSUITERS COMPLETE LONG TREK BY AIR

Pilots of the 27th Pursuit Squadron, Selfridge Field, Mich., on February 10th, completed a long and arduous trek by air that carried them through fifteen States and over a distance of 4600 miles. The flight was made as a formation extended cross-country, and all expenses except airplane fuel and oil were borne by the individual pilots.

A great deal of valuable experience was gained by the members of the Squadron during the flight. Not only was flying performed in nearly every kind of weather possible, but also every kind of terrain, servicing facilities and the like was encountered. There being no mechanics on the flight, all inspection, maintenance and other such duty was performed by the officers.

An extremely interesting visit was made during the stop at Pensacola, Fla., to the United States Naval Air Training School. Naval officers representing the Commandant escorted the Army pilots through the school and explained methods of instruction and installations. The Commanding Officer and members of the Squadron have expressed their gratitude to the United States Navy and particularly to the officers stationed at Pensacola for their many courtesies.

Another very interesting halt was made at the Air Corps' aerial gunnery camp at Valparaiso, Florida. Here the Squadron was delighted to find a beautifully laid out flying field on the shores of the Gulf of Mexico. Every provision has been made for the comfort and diversion of officers on duty at Valparaiso, also for visitors during the short gunnery practice camps or who merely come to Valparaiso for the diversions offered. All the pilots expressed deep desire to try out the fishing and golf facilities at the first opportunity.

The Squadron employed on this flight the Boeing P-26 airplanes and, with two exceptions, they stood the long grind very well. A clogged strainer forced Lieut. Julian M. Bleyer down at Valparaiso on the fourth day of the trip. There was no injury to the pilot or damage to the airplane.

Lieut. James L. Bledsoe was forced to abandon his airplane about 30 miles west of San Antonio, Texas, when the engine suddenly failed and ignored all efforts to start it again. As the Squadron at that time was over terrain which precluded any possibility of setting the P-26 down, the pilot was forced to resort to his parachute at a low altitude and landed (as is the custom in Texas) in the usual mesquite tree. The demolished plane was some 200 yards distant.

Lieut. Bledsoe was soon picked up by a sheep herder and taken to a ranch. Later the sheep herder drove him to Kerville. Lieut. Osborn flew up from Kelly Field and, after ferrying Lieut.

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Bledsoe to Duncan Field, Texas, where a Selfridge Field transport plane, which was returning from California, provided him with means of transportation back to his home station. Subsequent analysis showed that the motor failure was due to the engine "throwing" the fuel injector blower.

The following radio was subsequently received at Selfridge Field from Brigadier General Gerald C. Brant, Commanding General of the Second Wing, GHQ Air Force:

"Desire to commend Major Taylor and other officers of your Group who participated in recently completed unit navigation flight. The accomplishment of this flight of over five thousand miles with but one change in the flight schedule clearly indicates the high standard of pilot technique of the First Pursuit Group."

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NEW CLASS AT AIR CORPS WEATHER SCHOOL

The second class of the Air Corps Weather School, located at Patterson Field, Fairfield, Ohio, reported for duty on February 1st. Twenty-six students from stations located in all parts of the United States congregated to take advantage of this training. In the functioning of the Air Corps, accurate and efficient weather service has become of increasing importance. Especially has this become apparent with the advent of modern long range aircraft of large size and high landing speeds.

The first class of the new school completed its work on January 28th. Of the original group of 25 students, all but five, who were relieved for various reasons, completed the course. Of the graduates, Sergeant Ernest J. Fawbush, of Barksdale Field, La., finished with the highest scholastic record. He was closely followed by Sergeant Henry A. Mooney, of Fort Bliss, Texas. The averages were computed from the grades received in four subjects: Mathematics, Meteorology, Physics and Weather Forecasting. Members of the first class have already received orders covering their assignments to important Air Corps centers where they will assume duties as weather forecasters of the Army.

Under the direction of Lieut. Colonel J.H. Houghton, Commanding Officer of Patterson Field and Commandant of the Weather School, Captain Don R. McNeal, Signal Corps, is in direct charge of classes and instruction. He is assisted by Technical Sergeant Bernheisl, Staff Sergeant Hubbard, Staff Sergeant Laurin, Staff Sergeant Franz and Sergeant Yatteau.

The following students assembled on February 1st for instruction in the current class, which will cover a period of five months:

Technical Sergeants Julian P. Orem, Patterson Field, Ohio; Harry F. Gordon, Fort Bragg, N.C.; Diram Arakelian, Barksdale Field, La.; and John S. Philips, Kelly Field, Texas.

Staff Sergeants: Herman J. Pryber, Patterson Field, Ohio; Robert M. Glenn, Bolling Field, D.C.; William Farrell, Scott Field, Ill.

Sergeants: Charles F. Miller, Fort Leavenworth, Kansas; Edward D. Steel, Langley Field, Va.; John H. Butler, Chanute Field, Ill.; Daniel Adams, Fort Benning, Ga.; Danny E. Neff, Patterson Field, Ohio; Harry W. Larsen, March Field, Calif.

Corporals: Morris W. Aberman, Mitchel Field, N.Y.; Norman L. Tyler, Barksdale Field, La.; Hugh P. Fredin, Fort Clark, Texas; Daniel E. Boynton, Bolling Field, D.C.

Privates, 1st Class: Thomas F. Kelly, Maxwell Field, Ala.; Frank Arietta, Tucson Airport, Ariz.; Wallace Brewer, Lordsburg Airdrome, Texas; Robert I. Dunlop, Randolph Field, Texas; Hubert G. Seeker, Patterson Field, Ohio; Homer Hawes, Ford H. Leichel and Walter W. Westall, Hamilton Field, Calif., and Clayton D. Sherwood, Fort D.A. Russell, Texas.

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WILD GEESE DISPUTE PLANE'S RIGHT OF WAY

According to the March Field Correspondent, the story of the brave little tailor, who killed seven flies with one blow, was repeated with some variations recently when Major L.C. Mallory, Commanding Officer of the 73rd Attack Squadron, reduced the wild geese population by five - all in one full swoop.

While Major Mallory was on a tactical mission near Lake Elsinore, Calif., six geese, frightened by the sound of his low-flying airplane, rose directly in its path and, honking angrily, charged in dispute of his right-of-way. In the resultant clash between the metal behemoth and the aerial "Light Brigade," one bird found its way into the oil radiator - and stayed there; one hit the left landing light and the passing light, shattering them and crumpling the wing in that vicinity; another smashed into the fairing over the right oleo leg, which was retracted into its recess and which was later extended only with great difficulty; the fourth attacked the fairing around the main gas strainer, and the fifth delivered an effective blow on the leading edge of the right wing, crushing the skin and formers back for six inches. The sixth bird, surveying the situation calmly, avoided injury by charging in the opposite direction.

Major Mallory, feeling not at all like the brave little tailor who advertised his feat with a placard in his window, wheeled away from the scene of his triumph and flew home through a swirling cloud of feathers.

STAFF SERGEANTS QUALIFIED FOR APPOINTMENT AS TECHNICAL SERGEANTS, AIR CORPS
Effective January 1, 1938

*1	Pust, Joseph H.	68	Rubby, Louis	135	Caris, John A.
*2	Mullinix, Shockley D.	69	Laquatra, Lee	136	Chovenitz, Frank J.
*3	Cuthbertson, Preston A.	70	Aldrich, Guy A.	137	Weeks, Alvin C.
4	Parmentier, Lloyd	71	Wetzorke, Bruno	138	Dobbs, Mack H.
5	Hoagland, William	72	Boyles, George D.	139	Jolly, Arthur
6	Jones, George S.	73	Gurley, Bert E.	140	Meeks, John D.
7	Cross, Charles M.	74	Norich, Albert I.	141	McKown, Floyd K.
8	Smith, Lawrence	75	Worthen, Roy E.	142	Dooney, John J.
9	Malkemus, George D.	76	Smith, Anthony	143	Walsh, Bernard A.
10	Boudreaux, Henry D.	77	Hygh, Rellifcrd	144	McGhee, Lester L.
11	Monroy, Phillip P.	78	Reilly, Clarence	145	Phinney, Howard M.
12	Jernigan, William H.	79	Richardson, Homer L.	146	Ward, Leland S.
13	Yucius, Tony	80	Moore, John H.	147	Gregg, Emmett L.
14	Tucker, James R.	81	Tuffly, Edward W.	148	Norris, Walter W.
15	Fagan, Luther W.	82	Dossett, Elbert	149	Newland, Gus V.
16	Willett, Ray R.	83	Boyles, James H.	150	Hagan, George M.
17	Greene, Robert H.	84	Sarem, Jack	151	Warren, Henry M.
18	Williams, Leonard	85	Cheatham, Charles W.	152	Shellhorn, Edward
19	Antrim, Roland M.	86	Fields, Wiley C.	153	Terrell, Harry A.
20	Horton, Dewey	87	Kidd, Harvey C.	154	Ray, Floyd F.
21	Hurst, Frank	88	Lovett, George W.	155	Lawson, Lane
22	Paseman, Edwin	89	Winfrey, Oliver A.	156	Harth, George J.
23	Wolfe, Jack	90	Calcagno, Frank A.	157	Brock, Norris
24	Darcy, Lawrence J.	91	Ward, Walter M.	158	Charbough, Michael E.
25	Steine, David	92	Hampton, Jack	159	Visbal, Germain A.
26	Kramberg, Joseph	93	Washburn, Emory E.	160	Novak, Louis W.
27	Barker, Arthur C.	94	Senter, Herman F.	161	Goulla, Jack
28	Mehnert, William	95	Jensen, Oluf T.	162	Gutierrez, Arnoldo
29	Skelton, Edward F.	96	Gorman, Andrew J.	163	Martin, Paul H.
30	Hicks, Harry	97	Benevides, Joseph M.	164	Hodges, Herbert P.
31	Sloan, Miles B.	98	Froberg, George W.	165	DeFord, Lyman
32	Carter, Lloyd	99	Eanes, Louis V.	166	Smith, Sigsbee J.
33	Blesh, Earl S.	100	Ross, Delno W.	167	Falk, John A.
34	Brucher, Martin	101	Mondt, Howard	168	Flores, Alberto
35	Fisher, Elmer H.	102	Simmons, Joel A.	169	Vidmar, Frank
36	Masterson, John A.	103	Wheeles, John A.	170	Delaney, Samuel H.
37	Gardick, Charles	104	Eldridge, Russell	171	Castlemaine, Earl W.
38	Benson, Harold P.	105	Leonard, Dale F.	172	Chestnutt, Herman L.
39	Nipper, Eli B.	106	Lazor, Thomas	173	Morrison, Jay P.
40	Dearborn, James E.	107	Kannolt, Henry P.	174	Tetu, Dona E.
41	Armstrong, Chester A.	108	Hansen, Henry P.	175	Armbrusto, Otto
42	McClellan, Edwin J.	109	Schultz, Steve J.	176	Beckham, Reuben S.
43	Whitaker, Gerald G.	110	Gerduque, Gabriel	177	West, Glass
44	Dambroso, Tony	111	Harmack, Robert W.	178	West, Henry L.
45	Marshall, John A.	112	Bathey, George H.	179	Peluso, Tony J.
46	Shelton, Luther	113	Rogers, Sam F.	180	Martin, Troy V.
47	Davis, Golden R.	114	Yaeger, Adolph C.	181	Bryan, Hugh
48	Bennett, Paul D.	115	Martini, Henry	182	Weltz, William M.
49	Mueller, Courtney K.	116	Carr, George W.	183	Simpson, Johnnie S.
50	Fredericks, Joseph M.	117	Langston, Wilbur E.	184	Mishmash, Charles J.
51	Sequine, Cecil C.	118	Mickey, Everett	185	McLish, William B.
52	Hymes, Samuel	119	Criss, Karl W.	186	Townsend, Joel H.
53	Silva, Manuel	120	Huffman, Ernest J.	187	Milliard, Peter L.
54	Flower, Abraham	121	Burton, Jack	188	Williamson, Henry
55	Henry, William F.	122	Tormey, Thomas P.	189	Hall, Bolton
56	Yocum, Johnny V.	123	Fields, Clarence D.	190	Bishop, Chalmers N.
57	Carlow, Harold F.	124	MacDermott, William K.	191	Kolb, Peter, Jr.
58	Platt, Graham	125	Dwyer, Charles L.	192	Michael, Edward
59	Jones, Thomas A.	126	Schuette, Alfred A.	193	Mobley, Emmett A.
60	Deming, John B.	127	Anderson, Chauncey L.	194	Collins, Jacob
61	Kievet, Anthony	128	Weiss, Joseph	195	Hunsberger, Horace K.
62	Pruitt, Cecil	129	Riviere, Jean E.	196	Bernatchez, Antonin P.
63	Barnhart, Lawrence E.	130	Witwicki, Kazimir	197	Kaplak, Andy
64	Martin, Morris	131	Reilly, Patrick D.	198	Laza, Joseph C.
65	Simpson, Dewey H.	132	Alexander, Nick	199	Podraza, Walter H.
66	Hoppe, Helmar B.	133	Peterson, Cayus P.	200	Pond, Everett L.
67	Barkhurst, Frank M.	134	Hoekstra, Robert	201	Turner, Harry

*Appointed to grade of Technical Sergeant since January 1, 1938

202 Fajnik, Nickolas
203 Anning, Richard S.
204 Hope, Daniel
205 Nielson, Jean
206 Hinck, Reuben
207 Carnes, Charles A.
208 Oprenchak, John
209 Prince, Kerman
210 Kelly, Bernard F.
211 Edmondson, Albert B.
212 Browning, Earl H.
213 Powers, Barron C.
214 Barnhill, Jesse J.
215 Allison, Roy E.
216 Hollis, Claud D.
217 Shelley, Verl A.
218 Illy, John
219 Winter, David
220 Mulkey, Lloyd
221 Koblitz, Monroe J.
222 Knowles, James R.
223 Summers, Robert F.
224 Weeks, Edward
225 Garcia, Adelmo W.
226 Fields, Edward B.
227 Brockhausen, Fred C.
228 Burt, Albert B.
229 Kirkpatrick, Everett
230 Roberts, Linah L., Jr.
231 Farrell, Herbert W.
232 Gilinsky, James L.
233 Lynch, Eugene F.
234 Hamsher, Chester L.
235 Mooney, James P.
236 Cornell, Harry B.
237 MacKenzie, John H.
238 Irwin, Charles H.
239 Killian, Wiley
240 Leonard, Frederick J.
241 Cates, William R.
242 Thomas, Dale E.
243 Salmon, Henry P.
244 Caraway, Rayford A.
245 McQuillan, William P.
246 Scott, Orval W.
247 Payne, Lemuel T.
248 Hraback, Joe S.
249 Fowler, Byron L.
250 Benson, Harry A.

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The Move to Denver, Colo.

(Continued from Page 7)

were prepared for further cases; a civilian nurse was hired and 1st Lieut. Jarvis, Medical Reserve, was immediately called in and additional medical supplies were obtained. Three days later the epidemic was over and, best of all, the attack was confined to the post alone.

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RESERVE OFFICER KILLED IN AIR COLLISION

Second Lieutenant Richard Dale McCloskey, Air Reserve, was killed at Kelly Field, Texas, on the morning of February 11th, as the result of an airplane collision in mid-air. Lieut. McCloskey was flying in a Pursuit formation of P-12 type airplanes. The flight, which was a training mission for instructing, was practicing Pursuit maneuvers about a mile southeast of Kelly Field. Captain Burton M. Hovey, Jr., was the flight commander, and Lieut. Marvin F. Stalder was the element leader of the second element. In executing an in place turn in string formation, Lieut. McCloskey's plane, which was No. 3 in the string, collided with Lieut. Stalder's plane. The propeller of the latter's plane cut through the fuselage of Lieut. McCloskey's plane. Lieut. Stalder was able to make a dead stick landing with his plane without injury to himself.

Lieut. McCloskey, a student of Class 25-B, graduated from the Air Corps Advanced Flying School, Kelly Field, on June 17, 1936, specializing in Pursuit Aviation. Upon graduation he was assigned to Selfridge Field, Mt. Clemens, Mich., for one year as a flying cadet, and later received his commission in the Air Reserve. He was born on June 16, 1911, at Lock Haven, Pa. He graduated from Franklin and Marshall College in 1934.

Lieut. McCloskey is survived by his wife and Mrs. Margaret Drisken, his mother, and Vaughan McCloskey, his brother. Funeral services were conducted at the Post Chapel at Fort Sam Houston, Texas, and interment was at the National Cemetery at that station.

The deep sympathy of the Air Corps is extended to the bereaved relatives and friends of the deceased officer.

REESTABLISHMENT OF BOMBARDMENT TRAINING

At the Advanced Flying School at Kelly Field, Texas, beginning February 23rd with the incoming class which graduated from the Primary Flying School, Randolph Field, Texas, Bombardment training was reestablished, and the following-named Air Corps officers were assigned to the Bombardment Section: Major John V. Hart, Chief of Section; 1st Lieuts. Delmar T. Spivey, Roy D. Butler and Roger J. Browne, Instructors.

The 101 students of Class 38-B, recently graduated from Randolph Field, comprising 2 officers of the Regular Army, 6 foreign officers and 93 Flying Cadets, were scheduled to be assigned to the specialized sections of the Advanced Flying School, as follows:

Attack: 3 foreign officers and 32 Flying Cadets.

Bombardment: 10 Flying Cadets.

Observation: 2 Regular officers, 2 foreign officers and 16 Flying Cadets.

Pursuit: 1 foreign officer, 35 Flying Cadets.

Actual flying training for the new class at the Advanced Flying School was scheduled to begin on March 1st.

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MARCH FIELD PILOTS ON EXTENDED NAVIGATION FLIGHT

Major Lucas V. Beau, Post Adjutant, March Field, Calif., recently returned to his home station following an extended x-country flight with Major Earl S. Hoag, 1st Wing, as co-pilot, in a C-33 Transport, for the purpose of ferrying twelve enlisted men from March Field to Fort Monmouth, N.J., for training at the Army Signal School.

On the return flight, the two March Field officers landed at Maxwell Field, Ala., where they received telegraphic permission from Brigadier Delos C. Emmons, of the 1st Wing, GHQ Air Force, to proceed with members of the Air Corps Board to Barksdale Field, La., to witness an Air Corps tactical demonstration in which B-18 airplanes from March Field participated.

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Contribution of material to the News Letter from France and Albrook Fields, Panama Canal Zone, will be greatly appreciated. News from the "Zone" is always of interest.

SOME FACTS ON THE AIR CORPS TRAINING CENTER

The address delivered by Colonel Wm. B. Tuttle, Engineer Reserve, U.S. Army, during the exercises incident to the graduation of the students of the Advanced Flying School, Kelly Field, Texas, on February 16, 1938, is quoted below, as follows:

"Colonel Krogstad, ladies and gentlemen, and graduates:

"I am going to talk particularly to the graduates and tell them something about the history of the Air Corps Training Center. The facilities for training which the graduates of today have had the advantage of did not just happen by chance. They are the result of careful study and planning by officers of the Regular Army, supplemented by financial support and many months of endeavor by the citizens of San Antonio, and by the earnest support of a few far-seeing members of Congress.

"The history of the military flying fields in and around San Antonio began with the construction of one small frame hangar in the area now occupied by the 2nd Division at Fort Sam Houston, and no development of any consequence was made until the beginning of the World War.

"After the beginning of the World War, the land now occupied by Duncan Field was taken under option by a committee from the San Antonio Chamber of Commerce, acting for the government, and later the land now occupied by Kelly Field was added, the whole area then being known as Kelly Field.

"Kelly Field was at first mainly a concentration camp for personnel. There were very poor facilities for housing and the place was crowded with recruits, and with officers with little or no experience. As many as 40,000 men were said to have been in camp at the maximum. A few experienced Regular Army officers, assisted by the temporary officers assigned to the camp, gradually worked system and discipline into the organization, and the development of a real field began.

"The plans at this time contemplated an Air Corps Training Center, including the construction of two additional fields in the vicinity of Kelly Field, one of them to the southwest of San Antonio and the other south of South San Antonio; and representatives of the San Antonio Chamber of Commerce again undertook the duty of obtaining the necessary options for the United States Government.

"The necessary options had practically all been obtained when a commission of foreign officers who were familiar with the flying training in Europe was brought to the United States on a tour of inspection and recommendation. These officers upon being advised as to the plans for the three-unit training center in the vicinity of South San Antonio immediately stated that the plan was not a good one for the reason that the fields contemplated were too close together and that the congestion in the air which would result would bring about an unnecessarily large number of accidents. Instead, these officers recommended the procurement of at least one other flying field some distance from Kelly Field.

"Accordingly, the two additional sites near South San Antonio were given up, and again representatives of the Chambor of Commerce, acting for the United States Government, were given the task of securing another field. It was stipulated that this field must be fairly close to San Antonio, on a good highway, with railroad facilities, electric service, and a good water supply; and accordingly the area, which later became known as Brooks Field, was secured. Temporary wooden quarters, buildings, and hangars were built up on both Kelly Field and Brooks Field, and what is now known as Kelly Field was separated from Duncan Field, where the warehouses were established.

"Conditions then remained practically unchanged until in 1926, when Colonel C.C. Culver, Commanding Officer of Kelly Field, and Major Ralph Royce, Commanding Officer of Brooks Field, acting under Major General Mason M. Patrick, then Chief of the Air Corps, recommended additional facilities, and a bill was introduced by Congressman Frank W. James, proposing the expenditure of $1,856,000 for the construction of a new primary flying field. This bill passed the House, but was eliminated before a Senate Committee because of the opposition of certain Senators who took the position that no appropriation for such construction should be made unless the government had land available on which to build.

"Brigadier General Frank P. Lahm took command at Kelly Field on September 1, 1926, and organized the Air Corps Training Center, uniting Kelly Field and Brooks Field under one command. Very soon thereafter he advised the Chairman and the Vice Chairman of the Military Affairs Committee of the Chambor of Commerce that a large primary flying field would be located somewhere in the United States, and that if it was to be located in the vicinity of San Antonio it would be necessary for the citizens to provide approximately 2,000 acres of land for this purpose.

"A little later, Brigadier General James E. Fechet, then Assistant Chief of the Air Corps, stated that the Army regarded the vicinity of San Antonio as the most favorable location for the new primary flying field, but that while Congress was apparently willing to appropriate the funds necessary for the construction of such a field no appropriation for the purchase of land could be

secured.

"In April, 1927, a board of officers from the Air Corps Training Center was appointed to locate a desirable site for a new primary flying field in this vicinity; and on May 1, 1927, an engineer representing the Military Affairs Committee of the Chamber of Commerce was also placed on this work.

"In May, 1927, following a dinner given by the Chamber of Commerce to a large number of visiting military authorities, there was a meeting at the Plaza Hotel at which there were present Hon. Trubee Davison, Assistant Secretary of War; Major General Mason M. Patrick, Chief of the Air Corps; Brigadier General Frank P. Lahm; Senator Morris Sheppard; Congressman Harry M. Wurzbach, representative from this district; R.W. Morrison, President of the Chamber of Commerce; Colonel W.B. Tuttle, Chairman of the Military Affairs Committee of the Chamber of Commerce; and L.B. Clegg, Vice Chairman of the Military Affairs Committee of the Chamber of Commerce. At this meeting it was stated that while the government would like, on account of military and climatic reasons, to have the new primary training field located in the vicinity of San Antonio, it would be impossible to locate the field in this vicinity unless a suitable tract of land was made available without cost to the government.

"Following this meeting, the search for a suitable tract of land continued. It was required that approximately 2,000 acres be secured at a distance of between 5 and 10 miles from the outer city limits of San Antonio, and that this land should be on or near a railroad; that it should be on or near at least one good highway, and that it should be possible to secure water, electric light and power, gas, and transportation facilities without undue cost.

"More than 20 possible sites were suggested, and each of these sites was inspected, first by an engineer acting for the Military Affairs Committee of the Chamber of Commerce, and then by officers from the Air Corps Training Center.

"The Military Affairs Committee of the Chamber of Commerce was advised that the Air Corps had selected several possible sites for the proposed flying field; and that the first choice of the Air Corps was a tract known as 'Calf Hill,' about five miles east of the city limits of San Antonio; and the second choice a tract of land near Elmendorf, about ten miles southeast of the city limits of San Antonio.

"In the latter part of October, 1927, General Lahm stated that an area more suitable than the 'Calf Hill' tract had been located by the Air Corps officers near the town of Schertz. The Military Affairs Committee of the Chamber of Commerce then sent an engineer to look over this site, and E.J. Altgelt and John B. Carrington were given the task of securing the necessary options. The area was mostly very level and well developed agricultural land, and it was found that most of the owners of the 24 farms involved would not sell except at very high figures, and many of them at first refused to sell at all. The Committee was informed that Congressman James would require definite assurance by December 31, 1927, that the site near Schertz would be available, and great effort was necessary to obtain the necessary options in the required time. Mr. Altgelt and Mr. Carrington were greatly assisted in this work by Franz C. Groos, who was made custodian of the funds with which the options were obtained, and by other citizens of San Antonio.

"In order to provide funds for the taking of the necessary options and provide for expenses incident to the acquiring of the land, the business men of San Antonio formed a corporation under the name of the San Antonio Airport Company, largely through the efforts of Porter A. Whaley, Manager of the Chamber of Commerce. A total of 182 firms and individuals subscribed to the stock of this corporation, and a total of $50,000 was paid in. This corporation was not operated for profit, and the proceeds subscribed finally became practically donations.

"It was evident that it would be impossible to raise upwards of one-half million dollars, which would be required to complete the purchase, in time to meet the demand of Congressman James that assurance be given by December 31, 1927, that the land on the Cibolo near Schertz would be made available. Judge R.L. Ball headed a committee to investigate the possibility of the city assisting in the financing; and the Mayor of San Antonio, Hon. C.M. Chambers, and the City Commissioners, Hon. Phil Wright, Hon. Ray Lambert, Hon. Paul E. Steffler and Hon. Frank Bushick, met the emergency by deciding that the city would borrow sufficient money to complete the purchase. On December 19,1927, the City Commission passed an ordinance authorizing such action. A party from the City Engineer's office, headed by Thomas H. Coghill, was sent out to make a survey of the property. The County Judge and the County Commissioners agreed to close a road which led across the tract desired by the Air Corps, and assisted in other ways.

"In the interim between the purchase of the land from its original owners and its purchase by the city and acceptance by the United States, there was a time when a group of citizens of San Antonio stood individually responsible for the entire amount of $546,000. These individuals were L.B. Clegg, L.J. Hart, E.J. Altgelt and R.J. Boyle.

On August 21, 1928, the San Antonio Airport Company was advised by a letter

from Captain Dorris A. Hanes of the Quartermaster Corps that the title to the land donated to the use of the government as a flying field had been approved by the Attorney General; and that the Acting Secretary of War had accepted this gift on August 18, 1928; and that the fee simple title to the entire area was then vested in the United States. It was also stated that the Quartermaster General desired that an expression of appreciation be made for this generous donation.

"The land for Randolph Field now having been provided, Congressman James and Congressman Wurzbach successfully continued their efforts to secure the necessary appropriations to carry on construction work, and Senator Sheppard and Senator Connally also lent their assistance; and the Quartermaster Corps and the Air Corps used every effort to expedite the detailed plans for the construction of Randolph Field. The actual amount of land taken over by the government for Randolph Field was 2,368 acres.

"The development of Randolph Field, which began on October 11, 1928, under Captain A.W. Parker, Constructing Quartermaster, was rapidly pushed forward; and that institution stands for itself today, a thing of beauty and of great practical worth.

"Duncan Field, with its shops, has been rejuvenated, and the move to rebuild Kelly Field is on the way.

"A bill sponsored by Mr. Maverick is now before Congress which will provide means for closing the old Laredo road which now runs through Kelly Field, and which is hazardous both to flying and to travelers.

"San Antonio and its citizens are proud of the Air Training Center which they have helped to create; and proud of you, the graduates of the Training Center. For them I extend to you graduates our congratulations for the work you have done in attaining this well merited degree, and appreciation for your patriotism and your effort in performing this work."

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TRAINING CENTER GRADS ASSIGNED TO FIELDS

Under Special Orders of the War Department, recently issued, the Flying Cadets who graduated from the Air Corps Advanced Flying School on February 16, 1938, and who were commissioned second lieutenants in the Air Reserve, are directed to proceed on or about March 4, 1938, to the Air Corps stations indicated, viz:

To March Field, Calif.: J.C. Bailey, John Clinton Bowen, James Valentine Edmundson, Robert Gabel Emmens, Adam Joseph Heintz, Clarence Edward McPherson, Joseph Coe Marcy, Robert Julian Mason, Elliott Thomas Pardee, Allen Dale Reedy, Claude C. Sturges, Jr., Ray David Taylor, Graham Warren West.

To Barksdale Field, La.: Richard Dowdy Callaway, Ralph Sheldon Garman, Harold Eugene Kofahl, Whitmel Tompkins Rison.

To Langley Field, Va.: Richard Austin Ames, Ernest Haywood Beverly, William Coombs Clark, Don Coupland, George Benjamin Greene, Jr., Frank Claveloux Parker, Jr., Dale Leroy Anderson, Marvin Stoll Zipp.

To Selfridge Field, Mich.: Hal Gurrage Armstrong, Jr.; Gwen Grover Atkinson, Dale Donald Brannon, James Breathitt,3d, Ned Alexander Cowles, William John Feallock, II, MacDonald Herbert Hays, Neel Earnest Kearby, Woodrow Wilson Korges, George Mabin MacNicol, Hamilton McClure, Magnus Buddy Marks, Kenneth Ray Martin, Theodore Stanley Proxmire, Jr., Ralph Llewelyn Pusey, Clinton Curtis Wasem, James Richard Watt, Melvin Francis McNickle.

To Fort Knox, Ky.: Richard Dellinger Dick.

To Brooks Field, Texas: Donald James French.

To Fort Benning, Ga.: James Warren Haskett, Paul Warfield Tibbets, Jr.

To Moffett Field, Calif.: Robert Norton Maupin.

To Fort Bragg, N.C.: Nathan Hoover Ranck.

To Fort Lewis, Wash.: Jesse Alton Tobler.

To Fort Sill, Okla.: Martin Eugene Wanamaker.

To Fort Riley, Kansas: Harold Micheal Keeffe, Hubert John Konopacki, Robert Albert Kummrow, Wayne Kimball Richardson, Eugene Carl Woltz.

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DFC AWARDED LIEUT. ELLIS

At a formal review at Randolph Field, Texas, at 9:00 a.m., February 12th, the Distinguished Flying Cross was awarded to 2nd Lieut. D'Ross Ellis,Air Reserve. The review included Air Corps officers, student officers,flying cadets, and all enlisted men stationed at the field. The presentation was made by Major General Herbert J. Brees, Commanding General of the 8th Corps Area.

Lieut. Ellis was awarded the medal for heroism in landing a damaged plane after the pilot, Lieut. Robert S. Fisher, had fallen to his death. The accident occurred during a flight from Hensley Field, Dallas, Texas, to Oklahoma City, Okla., on April 24, 1937.

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Tests to determine the requirements for tugs or tractors suitable for towing large airplanes were recently conducted at Langley Field, Va. Five manufacturers submitted a total of nine different vehicles, both wheeled and track laying. Specifications for the equipment will be prepared by the Air Corps Materiel Division in the near future.

STILL MORE STUDENTS FOR THE TRAINING CENTER

On page 8 of this issue of the News Letter it is stated that the March, 1938, class at the Air Corps Primary Flying School, Randolph Field, Texas, totals 189 students (161 candidates from civil life and 28 enlisted men of the Regular Army).

In the words of a well known motion picture detective of Oriental ancestry, we must add "Correction, please," for since this page was written a few days ago 66 additional candidates have qualified for a Flying Cadet appointment, so that as this is being written the score stands at 255 (225 candidates from civil life and 30 enlisted men of the Regular Army). The 66 additional qualified candidates, soon to begin flying training at Randolph Field, are enumerated below, as follows:

Civilian Candidates

Chaffin, Harold N.	Fort Smith, Ark.
Williams, Robert Bennett	Fort Smith, Ark.
Altman, Frederic Gans	Little Rock, Ark.
Terry, David D., Jr.	Little Rock, Ark.
Fletcher, Thomas, Jr.	Scott, Ark.
Breckinridge, John P.	State College, Ark.
Holsteen, Theodore Frederick	Hollywood, Calif.
Berry, James D.	Washington, D.C.
Breindel, George Joseph	Washington, D.C.
Norrod, Albert Burice, Jr.	Washington, D.C.
Fallister, Francis J.	Washington, D.C.
Allen, Frank	Chicago, Ill.
Cellini, Oliver G.	Chicago, Ill.
Morse, Harold Henry	Chicago, Ill.
Neely, Clarence Arthur	Chicago, Ill.
Barthelmess, Karl Theodore	Dixon, Ill.
Wiltjer, Clarence Peter	Urbana, Ill.
Peffer, David McNair	West Lafayette, Ind.
Beightol, Willis E.	Webster City, Iowa
Humfeld, Harold E.	Wichita, Kans.
Lombardo, Michael	College Park, Md.
Barnett, James Alex	Detroit, Mich.
Sass, Edward John, Jr.	Battle Creek, Mich.
Compton, Keith Karl	St. Joseph, Mo.
Spencer, Truman Augustus, Jr.	Roswell, N. M.
Woyke, Max Eric	Brooklyn, N. Y.
Van der Zee, John N.	Berea, Ohio
Spurgeon, Raymond Robert	Cincinnati, Ohio
McNeal, Thomas Carl	Cleveland, Ohio
Narecki, Frank H.	Cleveland, Ohio
Newman, Neil A.	Cleveland, Ohio
Grambo, Frederick C.	Cleveland Heights, Ohio
Rowland, Robert Richard	Lodi, Ohio
Pasjanon, Arthur Walter	Warren, Ohio
Jackson, J. Garrett	Altus, Okla.
Kennedy, James Young	Sayre, Okla.
Schwab, James Russell	Tonkawa, Okla.
Baseler, Robert Lee	Ardmore, Pa.
Oeltman, John T.	Charlevoi, Pa.
Worley, Earl W.	Littlestown, Pa.
Harmel, John C.	Lemmon, S.D.
Smelser, Harold Caldwell	Nashville, Tenn.
Locke, Cecil James, Jr.	Austin, Texas
Pulliam, Harney Lee Van	Austin, Texas
Ravey, Charles Hubert	Austin, Texas
Ruggles, Charles Edward	Austin, Texas
Faulkner, Cecil L.	Bellevue, Texas
Hubbard, William Edward	College Station, Texas
Henry, John Bailey, Jr.	Charlotte, Texas
Banks, Wilson H.	Dallas, Texas
Collins, Charles Monroe	Dallas, Texas
Jackson, Urban Blake	Corpus Christi, Texas
Easley, Samuel James	Fort Worth, Texas
Jenkins, Jack Simmons	Lubbock, Texas
Dunn, Frank Lowry	San Antonio, Texas
Gimble, Siddney B., Jr.	San Antonio, Texas
Krough, Louis Henry, Jr.	San Antonio, Texas
Ezzell, Ben Q.	San Benito, Texas
Tinker, Clarence L., Jr.	Arlington, Va.
Moore, Presley William	Staunton, Va.
Gustafson, Ray William	Seattle, Wash.
Lyons, Robert William	Tacoma, Wash.
Wood, Curtis Edward	Huntington, W.Va.
Udelhofen, Charles	Cassville, Wis.

Enlisted Men

Wright, Adolph M.	Louisville, Ky.
12th Obs. Squadron, Goodman Field, Ky.	
Wawrukiewicz, Waldemar A.	Chicago, Ill.
Medical Dept., Station Hospital, Selfridge Field, Mt. Clemens, Mich.	

A revision is in order in connection with the figures given in the previous article regarding State representation of native sons in the new class. Texas has forged far ahead of all other States with her delegation of 38 students, a record number, followed by West Virginia with 22; Illinois, 21; Ohio, 16; California, 15; New York, 13 and Michigan, 10.

As to the various cities represented in the class, Chicago, the leader, increased her delegation to 11 students, followed by Cleveland, Ohio, and Washington, D.C., with six each; Austin, Texas, with five; San Antonio and Lubbock, Texas; Columbus, Ohio, and Detroit, Mich., with four each; and Dallas, Texas; Boston, Mass.; Atlanta, Ga.; Tucson, Arizona; Little Rock, Ark., and Seattle, Wash., with three each.

Since the dead line for the acceptance of students for the March class was set for March 9th, it would seem that the roster is due for another revision when the gong finally sounds for full speed ahead.

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BOMBING DEMONSTRATION BY 96TH SQUADRON

The 96th Bombardment Squadron of Langley Field, Va., performed a demonstration mission on February 5th for the students of the Air Corps Tactical School on the bombing range at Barksdale Field, La.

Three B-17 Bombardment planes from this Squadron and one attached from the 20th Bombardment Squadron performed this bombing mission - demonstrating a method of attack on an outlined target, using various types of bombs and fuzes.

The weather on the day of the demonstration was unusually poor, necessitating the dropping of these demolition bombs at a minimum altitude of 3,500 feet. The bombers and pilots, however, put on an excellent demonstration of "crashing thru" with an exhibition of hitting the "bull's-eye" at an altitude from which the pilots of this Squadron had never before dropped demolition bombs. Several low order detonations with the large bombs did not give the students the necessary blast data required, but the critical eye of the Air Corps Tactical School authorities pronounced the demonstration a success even under the poor weather conditions.

The Argentine Flight
(Continued from Page 2).

looked too inauspicious. Turning left at Santiago, they climbed to an altitude of 21,000 feet for safe passage over the legendary treachery of the Andes. One comfort the flyers enjoyed as they cruised over those jagged peaks was the radio communication they were able to maintain with their flight leader, Colonel Olds.

Contact with Lima and thus with the friends at home was lost as the Colonel's plane dropped down the continental slope on the other side of the Andes. The radio could not penetrate those mountains, and contact with the world was not reestablished until relays through Buenos Aires were arranged.

Assembling again near the Argentine capital, Colonel Olds landed his plane at the Buenos Aires airport, slightly more than 12 hours after he left Lima. Again Colonel Olds addressed the anxious public back home and again the faces at Langley Field were wreathed in smiles as Colonel Olds praised the skill and fortitude of his officers and men. The planes he commanded were the largest and heaviest which have ever crossed the Andes. They were welcomed by United States Ambassador Weddell and high dignitaries of the Argentine Republic.

Where was Major Meloy during all this flying? After all night work on the defective propeller, the famous Border Rat soared out of Lima at 6:20 a.m., seven hours and 15 minutes after the departure of his companions.

For two,- three,- four hours he held straight to the course recently taken by his companions, and then for four more hours there was no message. What had happened to Meloy? Had he turned south to go into Santiago, or had he held his course, which it was observed, pointed straight at his destination, Buenos Aires? There was again much anxiety and much discussion at the Langley Field plotting board. Meloy's course - if he chose to charge on unswervingly for Buenos Aires - would carry him over the highest and most rugged peaks of the Andes, far from chartered airways and civilization. Even the map in that area was labeled "Unexplored."

Finally, at 2:00 p.m., the relay system from Buenos Aires began to function and the position of Meloy was reported - straight on the course and east of the Andes! Loud were the cheers that went up from the relieved and jubilant friends.

In record-breaking time he neared B Buenos Aires. But here he ran straight into that devil of the Cordillera, the "pontero" or Andean tornado, which was blanketing the area around Buenos Aires.

Major Meloy said it appeared to be a combination of sandstorm and an electric storm, and that the turbulence of the air approached cyclonic violence. Turning his B-17 aside, he flew around the edge of the pontero for an hour and a half until, finally, he was advised by Pan-American that he could now get into El Palomar Field.

Shattering all records, in spite of his delayed landing, Major Meloy dropped his "Flying Fortress" into El Palomar Field, Buenos Aires, 11 hours and 5 minutes after his Peruvian take-off. On landing at the Argentine airdrome, Major Meloy heaped lavish praise on the officials of the Pan-American-Grace Airways for the excellent cooperation they gave him in his record hop. He particularly commended Mr. Harold H. Harris, the manager of Pan-American's South American trade at Buenos Aires, and Mr. Kirkland, the Lima manager. He stated that both of these men were former Army Air Corps pilots of long experience.

Nothing was too good for the Good Will flyers during their Argentine stay. Enlisted men were quartered and rationed without charge at the noncommissioned officers' barracks in Buenos Aires. They reported that their money was useless in the Argentine capital as well as in other cities visited. Officers were dined by the United States Ambassador, Alexander W. Weddell, and Mrs. Weddell.

The climax of the 6,000-mile jaunt came with the appearance of the six airplanes over Buenos Aires on Sunday during the inaugural ceremonies. Their mission accomplished, the 49 men landed and took part in the Argentine gala day.

Taking another day off to rest and recuperate from their strenuous schedule, the personnel of the six Bombers prepared to leave El Palomar Field Tuesday morning. Five of the Bombers made the take-off at 7:10 a.m., but the sixth, commanded by Captain Archibald Y. Smith, was delayed by a minor mishap to one wheel which, while the plane was being rolled away from a gas pit, broke through the thin concrete cover of the pit. Captain Smith finally took off at 12:45 p.m.

The first five B-17's landed at Los Cerrillos airdrome, Santiago, Chile, at 12:05 p.m., completing the first leg of the leisurely journey home. Captain Smith landed at Santiago at 4:45 p.m., and remained overnight. Leaving Santiago on Wednesday morning at 11:25 o'clock, Smith arrived in Arica, Chile, at at 5:10 p.m. Engine trouble caused him a night's delay. He rejoined the flight Thursday at Lima, Peru, after an uneventful "hop" from Arica. At Santiago, Col. Olds made a short broadcast, recounting the progress of the flight up to that point.

Reluctantly the flight left Santiago on Wednesday morning at 8:00 o'clock, landing at Lima at 5:05 p.m., after another "uneventful" trip. The residents of Lima took advantage of the return visit further to demonstrate the meaning of real "southern" hospitality.

On Friday, February 25th, Colonel Olds turned his little armada toward the Panama Canal.

Nine hours after the departure from Los Cerrillos airdrome, the six B-17's, this time flying intact into their rendezvous, landed at Albrook Field. As the planes had had over 40 hours of flying time chalked up, it was deemed advisable on Saturday to fly them to France Field, seat of the Panama Air Depot, where extensive facilities were at hand to service them for the long air trip, planned non-stop, to Langley Field.

It is important to note that both of the Panama fields were entirely adequate for long range operations of B-17's.

At six o'clock Sunday morning on the ramp at France Field, the Atlantic side air base, even the engines sang happily as the crews made ready for the final "hop" to Langley Field and their homes. Still with the idea of giving maximum training to all, Colonel Olds directed the usual two-minute intervals between planes, and named Norfolk, Va., as the assembly point.

Waiting in the cold raw air of a Virginia Peninsula February, five thousand soldiers and civilians, including many reporters and cameramen, waited, their eyes scouring the skies for the return of their friends and relatives.

Was that a flock of birds off there a few miles, flying north for an early spring? No, it was the proud flight of "Flying Fortresses" loafing in from Panama in another record-establishing flight. Ten hours and 45 minutes between the Army's largest continental air base and its vitally important air base at France Field in Panama!

Bronzed and happy, they crawled out of the B-17's, to be greeted by Major General Frank M. Andrews, Commanding General of the General Headquarters Air Force, with a sheaf of telegrams and radio messages in his hands. He read to the assembled pilots and mechanics the personal greetings of the Honorable Harry H. Woodring, Secretary of War, and General Malin Craig, Army Chief of Staff. To these messages of praise, he added his own congratulations and commendations.

In the Senate, Senator Robert McReynolds, of North Carolina, and Senator Millard Tydings, of Maryland, lauded these men and their leader, Col. Olds, and suggested Distinguished Flying Crosses go to the 49 airmen.

Crosses and honors are fine business, of course, but this writer believes that the greatest reward of these men is the knowledge that they have completed what the Senators described as the Greatest Flight in History.

Immediately upon being apprised of the return of the Pan-American Good-Will Flight to Langley Field, the Chief of the Air Corps dispatched the following telegram to the Commanding General of the GHQ Air Force at that station:

"Have just learned of the landing of the B-17 flight from Panama after a record performance stop My congratulations to the General Headquarters Air Force for this successful demonstration of the efficiency of its organization and the high state of training and skill of its personnel stop The whole Air Corps owes a debt of gratitude to your men for this striking demonstration of the speed and mobility of air power stop It will have a wholesome effect throughout the Corps stop Please convey the following message to Colonel Olds, commander of the flight quote The whole Air Corps has watched the progress of your flight from beginning to end with the keenest interest stop It now congratulates you and your personnel for a truly magnificent performance stop You and your men have performed a difficult, tiring and trying task in an efficient and modest way stop You deserve fully what you now have comma the admiration and gratitude of the whole Corps."

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CODE INSTRUCTION AT RANDOLPH FIELD

The Academic Department of the Primary Flying School, Randolph Field, Texas, advanced a step in the method of code instruction. During the past two months, six Boehms Automatic Code Transmitters were installed under the direction of Lieut. Joel E. Mallory and Staff Sergeant North B. Bardell. This ingenious system of transmitters is capable of sending six different code speeds in three classrooms at the same time. The speed of transmission varies from six to seventy-five words per minute. The present installation accommodates 352 students.

The advantages of this new apparatus are chiefly the reduction of instructors necessary to accommodate large classes, and the elimination of the human element in transmission. Under the present system, three instructors, an operator and two assistants are doing the work that formerly required nine instructors. No two code operators transmit alike. Any change of instructors, particularly at speeds greater than eight words per minute, causes a temporary retard in the progress of the student. With the present installation, this factor is greatly eliminated.

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Under Special Orders of the War Department, recently issued, Colonel Frank D. Lackland, Air Corps, is relieved from assignment and duty at Wright Field, Ohio, and assigned to duty as Commandant of the Air Corps Advanced Flying School at Kelly Field, Texas. At Wright Field Col. Lackland occupied the position of Chief of the Field Service Section.

THE SINGLE SHEAR WEB WING

By the Materiel Division Correspondent

The single shear web wing is one which possesses a single-spar which takes the bending and shear loads formerly taken by two or more spars in the old type of construction. The single shear wing employs the leading edge as a box for absorbing the torsion loads. The Materiel Division, Wright Field, has static tested two wings of this type, one constructed of duralumin and one of stainless steel. Although the weights and planform are the same, the stainless steel wing appeared to be stronger and to possess greater torsional stiffness than the duralumin. After the minor repairs customarily made during static testing, the steel wing satisfactorily supported the design loads required.

The duralumin wing failed under static test, the failure occurring below design load requirements. It is now being repaired and reinforced by the contractor, and will be re-tested when returned to the Materiel Division. Reinforcements will add somewhat to the original weight, which will place it at a weight disadvantage when compared with the stainless steel wing.

An additional advantage of the steel wing is that it may be spot welded, giving a smooth surface and obviating the need of rivets. Although not yet in practice, fuel tanks could be constructed integrally with the stainless steel wing, permitting almost unlimited fuel capacity.

Although still in the experimental stage of development, a considerable amount of research work is being done on spot welding of aluminum alloys. Complete dependence for carrying large loads is not at present being placed on spot welding of this material. However, it is being used considerably in the fabrication of non-structural members.

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THE ARGENTINE FLIGHT

(Continued from Page 4)

cellent training of the GHQ Air Force, and they pay tribute as well to the wisdom of its commander in insisting that the integrity of the combat team be preserved in spite of all difficulties.

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Featuring the cover page of this issue of the News Letter is a photograph of Lieut. Colonel Robert Olds, Air Corps, as he is about to enter his B-17 airplane just prior to the take-off for the long aerial journey to Buenos Aires, Argentina.

This epoch-making flight was the second one to the capital of Argentina in the history of the Air Corps, the first one being made early in 1927, when the initial "Pan-American Flight" comprised five Loening Amphibian airplanes, under the command of Colonel Herbert A. Dargue, Air Corps. An unfortunate collision in the air, February 26, 1927, resulted in the death of two members of the flight, Captain Clinton F. Woolsey and 1st Lieut. John W. Benton. The eight remaining members of this first "Good Will" Flight are, happily, still actively connected with the Army Air Corps, and they are, in addition to Colonel Dargue, Lieut. Colonels Ira C. Eaker and Arthur B. McDaniel, Majors Leonard D. Weddington, Ennis C. Whitehead, Charles McK. Robinson and Muir S. Fairchild. At that time Colonel Dargue held the rank of Major; Lieut. Colonels Eaker and McDaniel the rank of Captain, and the remaining officers the rank of 1st Lieutenant.

The five amphibian planes left San Antonio, Texas, on December 20, 1926; followed the east coast of Mexico, crossed the Isthmus of Salina Cruz and proceeded to Panama with stops in Honduras and Nicaragua. From Colon, Panama, the flight went to Colombia, returned to the Canal Zone and flew along the west coast of South America as far as Valdivia, Chile, where it crossed the Andes and reached the Atlantic side at Bahia Blanca, Argentina. Following the east coast, the planes flew to Buenos Aires and made a 1400-mile round trip up the Parana River to Asuncion, Paraguay. Next came Brazil, the Guianas and Venezuela. At Trinidad, the flight left the mainland and made a series of "hops" which covered the Lesser Antilles, Porto Rico, the Dominican Republic, Haiti and Cuba.

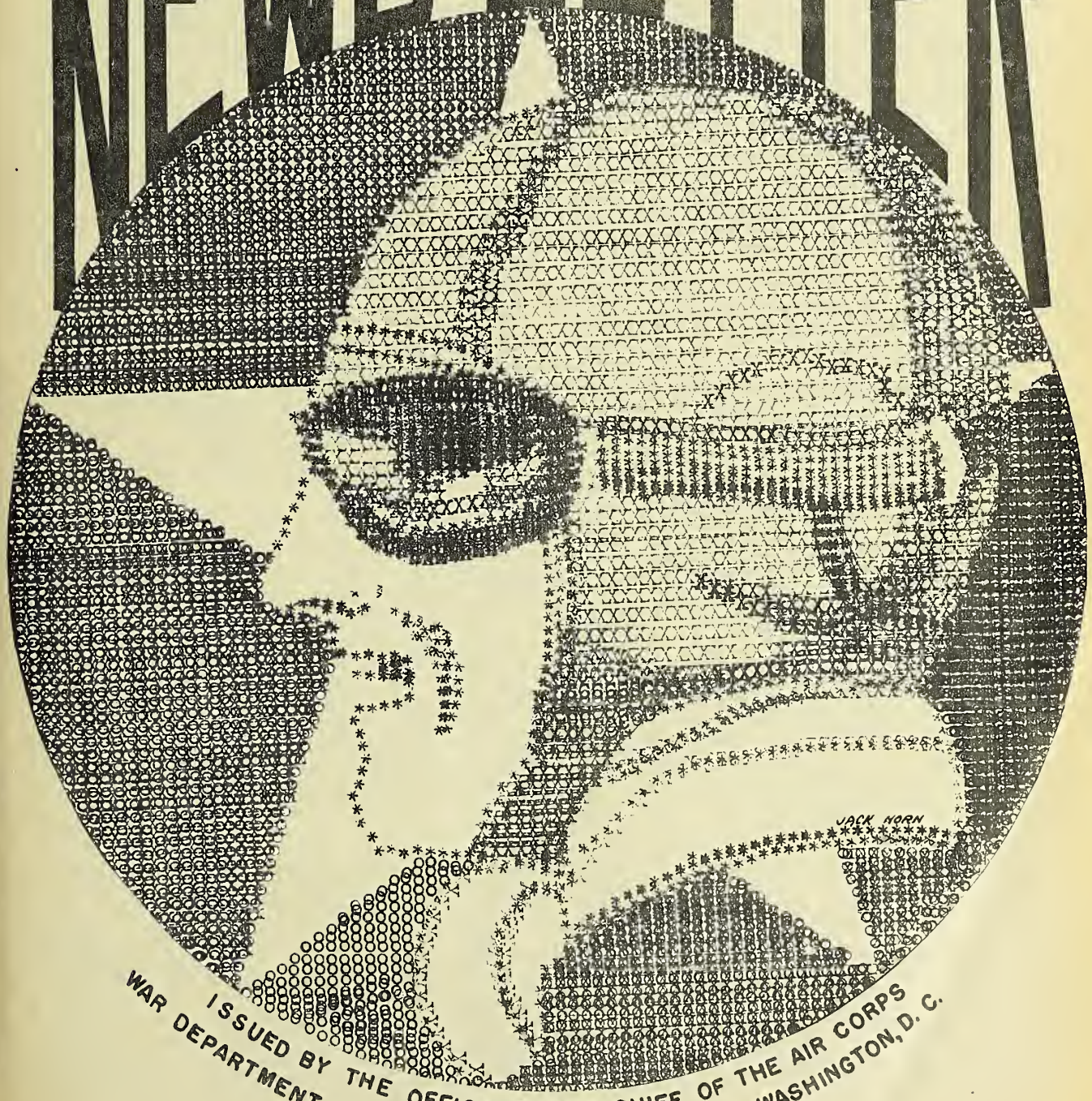
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A 13-page color-picture story of March Field, Calif., is soon to appear in a nationally-known magazine. For several weeks, Cy LaTour, well known free lance photographer, was at March Field wandering around in search of unusual material. As a result, he has worked out a splendid photographic representation of March Field, which parallels the most desirable type of information obtainable.

The Information Division, Office of the Chief of the Air Corps, has just received 500 copies in mimeograph form of a lecture given by Mr. Melvin N. Gough, of the Langley Memorial Aeronautical Laboratory, Langley Field, Va., on "The Handling Characteristics of Modern Airplanes from the Pilot's Standpoint."

This lecture was recently given before members of the U.S.S. YORKTOWN Squadrons VB-5 and VB-6. The pamphlet is very clearly reproduced and contains quite a number of charts. Copies of this pamphlet will be sent to those making application therefor as long as the supply lasts.

AIR CORPS NEWSLETTER



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WASHINGTON, D. C.

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VOL. XXI AIR CORPS NEWS LETTER NO. 6.

Information Division
Air Corps

March 15, 1938

Munitions Building
Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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19TH WING CONCENTRATION FLIGHT TO GUATEMALA CITY

By the Albrook Field Correspondent

In accordance with authority contained in War Department Training Directive, the 19th Wing, Air Corps, Panama Canal Department, under the command of Brigadier General George H. Brett, Air Corps, departed from Albrook Field and France Field, Canal Zone, on February 7, 1938, on an extended navigation and Wing concentration flight to Guatemala City, Guatemala. A total of 80 officers and 70 enlisted men made this flight in various types of airplanes.

Early on Monday morning, February 7th, the Sikorsky Amphibian YlOA-8, piloted by General Brett, with a total of six officers and 3 enlisted men, took off for Guatemala City. On the same morning, A-17's and P-12's departed from Albrook Field, via David, Republic of Panama, for Managua, Nicaragua, and remained there overnight. Flying in his command plane, the Sikorsky Amphibian, General Brett preceded the entire flight into Guatemala City.

On Monday night, while at Managua, the Attack and Pursuit pilots attended a reception given at the President's Palace by General Samoza, President of Nicaragua, which was followed by a reception given by the American Minister at his home.

Early Tuesday morning, February 8th, the Pursuit and Attack left Managua, while B-10 Bombardment planes departed from France Field on a non-stop flight to Guatemala. The massed flight was scheduled to arrive at Escuintla, Republic of Guatemala, for a rendezvous with the Sikorsky Amphibian and to proceed from there to Guatemala City, arriving at 10:30 a.m.

Upon the arrival of General Brett, he was greeted by the entire Cabinet, dressed in formal attire; the American Minister and his staff; the Minister of War, General Jose Reyes; and several high ranking officers of the Army and National Police. The Guard of Honor, composed of the Cadets of the Politecnica School (West Point of Guatemala) lined the entrance of the Airport Administration Building, standing at attention and presenting arms. The Brigadier General salute was fired by a detachment of artillery and the National Anthem of the United States and of Guatemala were played by a military band. Simultaneously, the national colors of both countries were raised on parallel flag poles. The entire spectacle was very impressive due to the smart and neat appearance of the Guatemelan Cadets and the colorful display of various flags, banners, etc.

On the following morning, General Brett, accompanied by his staff, made formal calls on General Jorge Ubico, President of Guatemala; the Minister of War, General Jose Reyes; and the Minister of Foreign Relations, Senor Carlos Salazar.

Following these calls, the senior officers of the flight proceeded to Antigua the ruins of the ancient capital of Guatemala, by automobile, where General Brett, received by the Governor of the Department, witnessed a review of two units of native Indian soldiers. High ranking Army and Civil officials and the American Minister and his staff accompanied the party. Luncheon was served at the Ancient Hostelry, where music was furnished by a military band and a native Marimba orchestra.

On the evening of this same day, the American Minister entertained the officers and numerous high ranking Guatemalans, both military, diplomatic and civil, with a party at the American Legation. Conspicuous in the spacious rooms were numerous floral pieces sent by Guatemalan Army units and members of the Foreign and Diplomatic Missions resident in the Capital.

On Thursday morning, February 10th, the entire Wing was lined up for inspection by the President at the National Airport. President Ubico took the salute from the Wing and rode around the airplanes which presented an impressive sight. After the inspection, the Presidential party proceeded slowly to the Campo del Marte (Field of Mars) about three miles from the airport, in order to witness the aerial review which was being presented by the 19th Wing in honor of the President. Proceeding slowly across the reviewing grounds, the party passed the military troops in highly colored uniforms who stood at salute.

Thousands of spectators lined the field, which is a tremendous parade ground at the Politecnica School. Shortly thereafter, the Wing arrived for its

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aerial review, led by one element of A-17's flown by the Wing Staff, and consisting of P-12's, A-17's and B-10's in that order. The entire Wing passed by in formation twice and the review was ended by a short demonstration of acrobatics performed by two Pursuiters.

The troops of the Guatemala City garrison passed in review, including a troop of Cavalry, the Cadets of the Politecnica School, and Infantry, Pack Artillery, and Machine Gun units. Following the review, the President and General Brett departed and passed the troops who were lined up at the salute. That evening the officers of the 19th Wing entertained the officers and officials of the American Legation and the Guatemalan Government at the Palace Hotel in token of their appreciation of the cordiality shown by the Guatemalans. That night the officers attended a banquet of some three hundred covers given by the Government in the name of the President. This was truly a sumptuous affair and one which was thoroughly enjoyed. The Secretary of State delivered an extremely cordial address in Spanish which was translated by the El Jefe del Protocolo as follows:

"Mr. General:

General Staff and Officers:

The visit with which the Nineteenth Squadron of military airplanes of the United States of America has honored us is a motive of particular gratification for the President of the Republic, for its Government and for the people of Guatemala; the high honor has been conferred upon me by the Chief Executive of the Nation, and which I fulfill with special pleasure, to make known in his name said sentiments, and I beg of General Brett and of his distinguished officers to graciously accept this public and sincere manifestation of gratitude with which we receive your visit. We appreciate in all its importance this very significant token of courtesy with which the Government of the United States is pleased, once more, to convey in an expressive and comprehensive manner the sentiments of loyal friendship which unites it to the Government of Guatemala, an ever increasing and never interrupted amity which has always existed throughout our history.

This demonstration of sympathy tendered to General Ubico and to his Government, also constitutes a proof of that noble Pan-American attitude which with greatness of mind was proclaimed in the recent conference held at Buenos Aires, declaring its solidarity with the rest of the Continent, on the same ideal of pacific brotherhood, of a love of justice and a devoutness to the cause of democracy; precepts on which the policy of Guatemala are firmly based and in the performance of which the United States will always find her close at her side. Your airplanes come to us as messengers of peace and they bring us, not horrors, destruction and death, but a beautiful message of good will. Their wings vibrate with the same spirit of international understanding which at present, more than ever, animates the Great Republic of the North, your beloved and glorious country. We have nothing to fear of its strength and everything to expect from its friendship. Permit me to raise my glass, which I do with all my heart, to drink to the health, in the name of the President of the Republic and of his collaborators in the Government, of His Excellency President Roosevelt, and to you Mr. General and Officers, gallant exponents of the North American Army, and to your noble country which, on occasions like the present, becomes even greater, for it sends to a neighboring and fraternal nation machines of war converted into heralds of peace and confraternity."

This was responded to by General Brett in English, the translation being made by the El Jefe del Protocolo, as follows:

"Mr. Minister.

I am delighted to receive from your lips and under these very pleasant and agreeable surroundings the expression of gratification which the President of Guatemala has been so kind as to convey to us on the occasion of this visit which the 19th Wing of the United States Army Air Corps has had the honor and the pleasure to make to your beautiful country. As so well expressed by Your Excellency, the aspirations and desires of the people of the United States for the continuance and extension of the friendship now happily prevailing between the United States and the other Governments of Central and South America constitute the basis of the Pan-American spirit as enunciated by President Roosevelt at the opening of the recent Inter-American Conference for the Maintenance of Peace at Buenos Aires. It is our hope that this visit of the entire United States Army Air Corps forces assigned to the protection of the Panama Canal will serve as a concrete demonstration of our belief that this spirit of friendship and peace is today a vital and active principle in the international relations of this continent. I wish to emphasize the fact that this is the first time in the history of the United States Air Corps that a force of this size and character has left its post of duty to make a visit of courtesy to a foreign government, and I am particularly pleased and gratified that circumstances have rendered it possible that this visit be made to your most fascinating and ever-hospitable country. Speaking for myself and for the personnel under my command, I wish to assure Your Excellency that the pleasure and anticipation with which we looked forward to this flight have been vastly exceeded in the realization of

friendliness, welcome and hospitality of which we have been the recipients. The review which I have witnessed this morning of the armed forces of this Government was particularly impressive and I compliment Your Excellency on the smart appearance, the evidence of thorough training, and the completeness of equipment which I noted on the part of the units of the Guatemalan Army passing before me. It is my hope that our air force in the Canal Zone will have the pleasure of receiving a return visit from the aerial forces of the Government of Guatemala. With this hope in mind I am happy to offer a toast in the name of our Commander-in-Chief, President Roosevelt, to His Excellency, President Ubico, who has honored us with his presence this morning; to the Government over which he presides; and to you, yourself, Mr. Minister; and to the people of this charming Republic."

This brought to a close the delightful ceremonies of the banquet and also of the short stay of the 19th Wing in Guatemala City.

During the stay in Guatemala, President Ubico placed the facilities of Guatemala"s West Point at the disposal of the enlisted personnel on the flight. Their sleeping quarters and all meals were furnished at the expense of the Guatemalan Government. Room orderlies were provided and the meals and accommodations were excellent.

Early Friday morning, February 11th, the entire flight departed from Guatemala City, the Sikorsky Amphibian and the Bombardment planes to fly non-stop to Albrook and France Fields, while the Attack and Pursuit ships left for San Jose, Costa Rica, to spend the night in that city.

Present at the airport to say good-bye were the 81-year old Minister of War, General Reyes; the American Minister and his staff; several high ranking Army officers; the Naval Attache; the Commandant of the Military Academy; the Secretary of State and the El Jefe del Protocolo.

On Friday evening the American Minister at San Jose held a reception in honor of the pilots remaining there. On Saturday morning, the Attack and Pursuit airplanes departed from San Jose for Albrook Field.

The entire flight was made without mishap or accident, and General Brett was well pleased with the successful results which were largely due to the excellence in maintenance and care of aircraft and equipment. By 3:30 p.m. Saturday afternoon, all airplanes were safe at their home stations, and the personnel who flew in them were left with pleasant memories of this splendid cross-country "hop."

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NEW CLASS REPORTS AT KELLY FIELD

One hundred and one students of Class 38B (3 Regular Army officers, 6 foreign officers and 93 Flying Cadets) reported to the Commandant of the Air Corps Advanced Flying School, Kelly Field, Texas, on February 23rd, for duty and training, and were assigned to sections for specialized flying training, as follows:

Attack Section

Captain Felix Cabanas (Mexican Army), 2nd Lieut. Ramon M. Zosa (Philippine Army), and Flying Cadets -

L.C. Adams, Jr.	A.E. Hebert	E.H. Petri
H.P. Bacot	R.F. Herder	W.R. Purinto
H. Billings	D.C. Hoevet	C.E. Putnam
F.E. Brenner	D.M. Jones	R.F. Rush
J.D. Bridges	R.M. Krummes	C.F. Smith
K.E. Brister, Jr.	F.A. Kurtz	R.T. Swenson
J.K. Carr	J.R. Loveless	W.E. Taylor
W.J. Cummings	V. McCauley	M.E. Walseth
L.G. Drafts	J.D. Madre	D.T. Ward
J.H. Grinnin	J.H. Moore	W.R. Yancey
W.E. Hampton	G.P. Overing	

Bombardment Section

Flying Cadets

F.T. Crimmins, Jr.	J.W. Pollard
J.J. Kerwin	F.D. Shoemaker
C.H. Martin	D.H. Skiles
R.E. Northcutt	J. Stagner
R.W. Philbrick	H.J. Watkins

Observation Section

Major L.A. Lawson, Air Corps, 1st Lieut. J.E. Barzynski, Infantry, 2nd Lieuts. A.O. Cruz and I.J. Paredes, Philippine Army, and Flying Cadets -

R.C. Bagby	R.G. LaBaw	G.D. Shannon
R.J. Brown	E.B. Miller	W.F. Stewart
D. Chalmers	K.L. Polifka	V.L. Stintzi
H.E. Hammers	E.H. Reed	C.H. Stockdale
C.E. Higbee	J.E. Scroggins, Jr.	B.B. Taylor
E.L. Hormell		

Pursuit Section

Lieut. Manob Suriya (Siamese Army), 2nd Lieut. Eustacio D. Orobio, Philippine Army, and Flying Cadets -

J.R. Ambrose	O.W. Lunde
P.R. Arnold	L.C. Lydon
R. Arnold, Jr.	G.M. McNeese
M.H. Ashkins	F.H. MacNaughton
J.E. Bowen	S.H. Marett
W.A. Bowie	G.L. Meyers
W.A. Champagne	W.B. Putnam
L.W. Chick, Jr.	E.M. Ramage
R.C. Chilton	J.P. Randolph
P.C. Droz	P.C. Sakowski
E.H. Dunham	H.J. Shipley
R.P. Fulcher	R.R. Stewart
T.E. Gurnett	J.W. Strickland
F.B. James	B.D. Wagner
E.W. Keating	D.W. Wallace
D.L. Lewis	C.L. Wells
R.M. Loe	S.T. Wenrick
	J. Woolams

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TWINS REUNITED

Eighteen recent graduates of the Air Corps training Center have just reported for duty with the 1st Pursuit Group at Selfridge Field, Mt. Clemens, Mich., bringing the total number of pilots there to about 110, the highest figure in years.

Probably the most enthusiastic of the group of new arrivals, declares the News Letter Correspondent, is Lieut. Melvin McNickle of Poland, South Dakota. Not only has he realized an ambition of some years' standing in having won his "Wings," but he is reunited with his twin brother, Lieut. Marvin McNickle, after an absence of four months - an interminable length of time for the two who had never previously been separated since their birth.

Already these twins have succeeded in hopelessly confusing their acquaintances at Selfridge Field, ranging from the Post Commander to the mechanics on the airplanes. Apparently this is just in line with what they have been doing all their lives. Naturally, they attended school together, finally being graduated from the University of South Dakota, each with an A.B. degree. They belong to the same fraternity, Beta Theta Phi. They attended classes for each other when the occasion arose, and their activities were so closely paralleled that, should one of them choose to be absent, the other could always come to the bat for him with no one the wiser. For instance, they played varsity football for two years at South Dakota. Marvin (or Melvin) was a ball-carrying back, and Melvin (or Marvin) was a blocking back. They were on the varsity track team for three years, each specializing in sprints, and if what they say is true their times in any event never varied more than one-tenth of a second. They decided to make flying their career, journeying together to Fort Leavenworth, Kansas, for their examination and passing it the same day.

But then minor disaster struck! Melvin was rushed to the hospital for an appendicitis operation, and for the first time in their lives the brothers were confronted with the decision to separate or not to separate? Marvin took the bit in his teeth and departed for Randolph Field, and Melvin was forced to wait four months until the start of the following class.

Now both are wearing wings; they are members together of the famous 94th Pursuit Squadron. They live, eat, and fly together. Their one disappointment is that Pursuit airplanes are built to accommodate only one pilot.

"After spending some time with them," continues the News Letter Correspondent, "this reporter admitted to the twins that he still couldn't tell them apart. Whereupon Melvin (or possibly it was Marvin) lowered his voice and admitted the difference: One is, and one is not, equipped with an appendix!"

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GHQ AIR FORCE MANEUVERS IN FLORIDA

Citizens of the State of Florida will witness one of the most important maneuvers ever held by America's defensive air units when the Second Wing of the General Headquarters Air Force concentrates in the central part of the State during the latter part of March.

It was explained by staff officers of the Wing that the maneuvers are to be held in Florida because of the special qualifications of the areas to be used. The high command of the Wing will seek to determine whether a large unit of the GHQ Air Force can sustain itself and operate efficiently in an area hundreds of miles from the permanent bases of the Air Force. The answer to this question is of vital interest to those who are making intensive efforts to perfect the air defenses of the people of the United States.

It was further stated that the present organization of the combat units for air defense is largely experimental. It is the aim of all concerned to perfect an organization that can concentrate a part or all of its strength in any area of the United States on a few hours' notice and sustain itself in that area without dependence on distant sources of supply.

To facilitate this concentration of material and supplies, an advance Air Base has been set up at Jacksonville. The Airport of this city will be the focus of all assistance received from outside sources during the maneuvers. After supplies reach Jacksonville they will be furnished as needed to various squadrons in the field at Tampa, Orlando, Sarasota and Lakeland.

Colonel H.B. Clagett, air base commander at Selfridge Field, Mich., will command the Second Wing, GHQ Air Force, in the annual field exercises to be held in the central Florida area. Approximately 190 officers, 150 airplanes and 1,000 enlisted men will participate in these exercises. The headquarters of the Second Wing will be located in Tampa.

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The station assignments of the following-named 2nd Lieutenants, Air Reserve, who graduated from the Advanced Flying School, Kelly Field, Texas, on February 16th, last, have been changed, and they are now assigned to stations, as follows:

Second Lieuts. Hal Burrage Armstrong, Jr. and Gwen Grover Atkinson to Barksdale Field, La.; Harold Eugene Kofahl to Selfridge Field, Mich.; Marvin Stoll Zipp to Fort Benning, Ga., and James Warren Haskett to Langley Field, Va.

GIVE THE AIRCRAFT INSTRUMENT A CHANCE

By an Equipment Branch Engineer
Air Corps Materiel Division

I am an aircraft instrument. Much or little may depend on me, according to how well I work and how much confidence my user places in me. Some pilots swear by me, others swear at me.

As an instrument I date back to the time I was assembled from a great many individual parts, each of which was inspected carefully before being used in my assembly.

After proper adjustment and calibration I was put in a case and given tests at my maker's plant. Being part of a Government order, I was then wrapped and sealed in a carton and shipped to Wright Field.

In due time I was taken out of the carton and put through a rigid inspection in accordance with my governing specifications by the Instrument Inspection Unit.

As I am a good instrument, I passed this inspection, and was stamped with the official acceptance stamp. I was again sealed in a carton and sent to stock, after which I was sent to an aircraft manufacturer's plant and installed on an instrument board of a new airplane. (This suited me better than to have been sent to an Air Corps Depot to be used as a replacement on an older airplane.)

As soon as the airplane upon which I was installed was completed and ready to fly, it was up to me to do my stuff. But, please Mr. Pilot, don't expect too much of me unless I am properly taken care of. I won't tell you what I am, but should I be an altimeter, I won't be reliable unless I am properly set; should I be an air-speed indicator, see that my fittings are kept tight and that my head (pitot tube) doesn't get bumped or covered with ice; should I be a compass, keep me away from steel parts and electric currents, for they surely do have a strong attraction for my poor heart (magnets); should I be a gyro instrument, keep my heart (gyro) in the proper spin or I may lie to you; should I be --- but this is not a guessing game. Whatever I am, my likes and dislikes are covered by a T.O. Read up on me sometime.

Treat me right and I'll stand by you. I won't let you down. I'm no parachute. But if I should get sick or break a leg, be careful how you write my obituary. Try and tell just what was the matter with me or how I acted so that my doctor (the particular instrument engineer at Wright Field who knows my peculiarities) may properly diagnose the trouble and suggest a remedy.

And above all, during my lifetime when condemning my faults, please give me credit for my good points as well.

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PLANE REPAIRED UNDER ADVERSE CONDITIONS

"Early in December," says the News Letter Correspondent of the Hawaiian Air Depot, Luke Field, T.H., "the Flying Apartment House (C-33 to you) slid instead of rolled to a stop on the runway at Burns Field on the island of Kauai, about 100 miles west of Oahu. Although the pilot and co-ditto walked away from the landing (which constitutes a good landing), the damage was such that it was necessary for this Depot to establish a base in order to repair the ship. Mr. Heidlebaugh, Aero Repair Foreman, was placed in charge of the newly formed so-called Branch Depot, with Messrs. Schaupp and Leighton as assistants, and soon corralled a WPA steam shovel, several hundred railroad ties, a chain hoist, and various other items which the natural resources of the land provided. With the assistance of a maintenance crew from Luke Field, the extensive damage was repaired in good time, considering the difficulties encountered.

A resume of the daily radio progress reports read like a page from Admiral Byrd's Antarctic Diary. Continual drifting sand whipped by a high wind made working conditions miserable. The crew wore goggles to protect their eyes from being sand-blasted out of their sockets. When the wind died down heavy rains set in, but the work progressed under makeshift shelter. Heat treated rivets were packed in ice and forwarded by airplane as needed. Frequent airplane shipments of acetylene and oxygen bottles for welding purposes, as well as compressed air for the riveting guns, were made.

The result of this extensive repair of a new large type airplane under particularly adverse conditions is gratifying, considering the fact that Burns Field is only an auxiliary landing field, with no hangar or shop facilities, and is more or less isolated."

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NAVIGATION TRAINING AT LUKE FIELD

The navigation class conducted by the 50th Observation Squadron, Luke Field, T.H., is still in progress and has now developed from an academic stage to a practical one. Frequent hops have been made by dead reckoning from Luke Field to Hanamanica, which is situated on the south point of the Island of Maui, and from Luke Field to Ninini Point on the Island of Kauai. "It is believed," says the News Letter Correspondent, "that under the able instruction of Lieut. Abraham D. Olson, the squadron will be well qualified in navigators upon completion of the class."

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TRANSPORT SQUADRON ACTIVITIES

The Third Transport Squadron at the San Antonio Air Depot, Duncan Field, Texas, temporarily augmented with the loan of one C-33 Transport and crew from each of the other Air Depots - Fairfield, Middletown and Rockwell - has been a regular hive of activity this winter with the increased load of interdepot air freight transportation, resembling a railway freight division terminal. The additional crews and planes were loaned in the early part of January and, although it was necessary to change engines in two of the five C-33's during that month and the flying weather was good for only a limited number of days, there was a total of 445 hours flown, with a total of approximately 179,000 pounds of freight and 76 passengers hauled on these interdepot trips during the month of January. The total mileage was approximately 65,000, or nearly 1,100 miles per trip.

The C-33 loaned by the Fairfield Air Depot, with its crew consisting of Master Sergeant C.B. Guile, Technical Sergeant D.M. Swisher and Corporal C.F. Stracke, was ordered back to the Fairfield Air Depot on February 9th.

On a routine freight flight from the San Antonio Air Depot to Denver, Colo., and the Fairfield Air Depot, and return, January 10-13, with Staff Sergeant F.O. Tyler, pilot; Lieut. J. Will Campbell, co-pilot, and with such cargo as to allow carrying a capacity load of fuel, the flight from Denver to Fairfield, approximately 1090 miles, was made non-stop. This appears to be the longest non-stop C-33 flight made by the San Antonio Depot personnel.

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SAFETY ORGANIZATIONS AT AIR CORPS FIELDS

A Safety Committee has been appointed at the San Antonio Air Depot, Duncan Field, Texas, pursuant to instructions of the Chief of the Air Corps that a safety organization be established at each Air Corps station, and the further instructions of the Chief of the Materiel Division, Air Corps, in reference to Air Corps Depots. This is in furtherance of the aims of the Federal Interdepartmental Safety Council, a representative agency organized at the specific request of the President for the purpose of advancing safety education.

Major C.F. Horton, Air Corps, was appointed Safety Director of the San Antonio Air Depot to act as Chairman of the Safety Committee and to represent the Commanding Officer in safety matters, the remainder of the Committee consisting of a key employee from each of the main divisions of the Depot's activities.

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THE POWER PLANT ENGINEER REPORTS

Extensive engine silencer or exhaust silencer tests are nearing completion at the Air Corps Materiel Division, Wright Field, Ohio, with a view toward determining a method of test or yardstick from which to measure subsequent articles produced.

The Wright R-1820-53 engine to be used in the second lot of Douglas Bombers is now winding up on the torque stand, approaching a completion of the 150-hour grueling type test. Nearby is the R-1820-51 for the Boeing B-17B airplanes. It will follow close upon the heels of the -53 engine.

The Pratt & Whitney R-1830-17 engine to be used in P-36 contract is in the later stages of the type test. It is now being torn down for inspection.

Recent unsatisfactory reports show a decided improvement in information submitted. This is greatly appreciated by the Engineering Staff at the Materiel Division, inasmuch as information furnished results in a substantial saving of time involved in tracing down the various prospects of failure, not to mention the arrival at a more likely conclusion in the case of each failure. A few extra sentences on an unsatisfactory report clarifying the conditions at the time of the unsatisfactory condition, or the use of the airplane or engine on preceding flights, invariably is of great help in establishing reasons for failure.

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31ST BOMB. SQUADRON AT HICKAM FIELD

The 23rd Bombardment Squadron of Luke Field, T.H., joined with the rest of the 5th Composite Group in welcoming the 31st Bombardment Squadron to the Hawaiian Department. Many members of the 23rd greeted old friends and classmates when the 31st docked in Honolulu on February 8th. After doing their bit towards helping the newcomers to become settled, the 23rd got down to hard work to accomplish as much possible before turning their airplanes over to the 31st to enable the personnel of that outfit to get in some familiarization flights.

According to the Honolulu ADVERTISER, the 31st has gone under canvas at the new Hickam Field. With their new barracks at this field scheduled to be completed next January, the Squadron personnel are now housed in large tents with wooden sides and floors on an extension of the hangar line. Thirty of these tents were required to house this outfit.

The Squadron includes 30 officers and 180 enlisted men. It was stationed at Hamilton Field, Calif., since December, 1934, and prior to that time, going back to April, 1931, when it was reconstituted on the active list, it was stationed at March Field, Calif.

AUTOMATIC SIGNAL CONTROL FOR GROUND TRAINER

By Sergeant C. W. Muller
Instrument and Navigation Laboratory, Wright Field

During the past two years two methods of automatic control of radio range signals on the Link Trainer have been developed at the Materiel Division with the purpose in mind of relieving the instructor of the manual control for both volume and zone signal. Anyone who has observed an instructor during an orientation problem will readily agree that he is continuously using both hands for variation of the volume and some signal controls, if he follows the path of the recorder closely.

These controls, if actual flying conditions are to be simulated, must be changed gradually and continuously and, although the maps used in the problems are marked off in concentric circles to correspond with the volume control settings, it will be found that an instructor does not give the same volume or same signal for one problem as for another with the recorder in the same position for both problems. Also, the fact that the procedure is routine may induce some errors into the problem due to carelessness.

Another source of error is brought about by a bystander questioning the instructor about the problem while he is manipulating the signal controls. During this time it may happen that the signals are changing rapidly, depending upon the position of the recorder, and the instructor has missed a definite change of signal or volume. Lost time cannot be made up by moving the controls rapidly to correspond to the new position of the recorder, and the result usually is a bewildered student in the hooded trainer, and an unsolved orientation problem.

Automatic control of the volume and zone signals would eliminate errors from these sources and allow the instructor more time in which to broadcast weather reports, take notes on the course flown by the student, and communicate with the student.

The two methods devised for achieving this automatic control are a mechanical method and a radio method. The mechanical method is simpler, but the radio method is regarded as more clearly approaching the ideal solution of the problem.

The mechanical control consists of a guide arm supported from the end of the table and free to rotate over the recorder, with the cone of silence as the center. A pin attached to the top of the recorder runs in this guide arm, and as the recorder moves along any path except one directly towards the cone of silence, this pin moves the guide arm to the left or right. At the center of the guide arm and above it are gear sectors cut out to correspond to the angle of the zones for a given range. These sectors mesh, one at a time, with gears which rotate twice the speed of the sectors. These gears actuate another sector gear through a crank arrangement, similar to a connecting rod and crank throw on a crankshaft, and rotate the signal potentiometer to an "A", "On Course" or "N" signal position, the degree and direction of rotation being dependent upon the position of the recorder. The volume is controlled by a string attached to the pin on the recorder, and running through the hollow guide arm center to the volume control pulley.

As the recorder nears the cone of silence the volume increases. This increase is due to the movement of the spring-controlled volume control arm as the string winds itself around the volume control pulley. At the cone of silence the recorder wheel opens a contact under the table which cuts off the filament supply to the range signal tubes, and after passing through the cone of silence the circuit is closed. A change of gears and gear sectors is all that is necessary to adapt this control to any type of range simulated in the problem.

The automatic miniature radio range method consists of a low power modulated transmitter which can be tuned to the exact frequency of the range to be simulated. This transmitter is modulated at the correct audio frequency, and a keying device for the signals is included. Transmission lines from the keying device feed an antenna array under the trainer table.

This array at present consists of four antennas, 12 inches long and 90 degrees apart, with the inner ends $\frac{1}{4}$-inch apart. Diametrically opposed antennas are fed with the same zone signal and there is a definite cone of silence at the center of the array. The antennas are bent down at the outer ends to give the correct build-up in volume as the recorder approaches the station.

A small shielded pick-up wire on the recorder which is connected with the input of a standard E-4AF radio compass is installed in the Link Trainer. The student operates the radio controls as he would in an airplane and receives the correct zone signal determined by the position of the pick-up antenna on the recorder. In order to make full use of the compass installations, a modified recorder is being built with a small compass loop and vertical antenna directly over the recorder wheel.

These automatic controls open the door to many interesting problems which may be solved in a ground trainer. A complete cross-country table is being fab-

ricated with several miniature radio ranges laid out on it, each range transmitting on some fixed frequency between 200 and 400 kilocycles. A method has been devised whereby the instructor can either cut off the range and broadcast the weather on the same frequency or broadcast the weather over the range signal.

Another problem which has received attention is the automatic control of the instrument landing signals for ground instruction in the Air Corps method of instrument landing. At present the set-up for signal control consists of two low-power modulated transmitters, one on 201 kc. and the other on 219 kc., feeding small loop antennas under the table. These fixed antennas are spaced the correct distance from the landing field. Before this method can become standardized, additional experimental work is required on the type of antennas to be used under the table to give the most sensitive direction indication. When this method has been developed to the stage where it is practical and reliable, the solution of an instrument landing problem will rest solely with the student, the instructor acting only as an observer.

For instrument landing problems the modified recorder will be used. Synchronous motors with lower reduction gearing have been ordered for the recorder in order to make the instrument landing pattern larger and increase the distance between the two antennas. These new motors should place the inner and outer station antennas about eight inches apart.

All of these improvements, when standardized and placed in ground trainers, should lead to increased usefulness of trainers, a greater sense of responsibility on the part of the student regarding the solution of his particular problem, radio operating practice for him, and decreased dependence upon the instructor for correct signals. It is hoped that when experimental work has been completed, full use will be made of these radio methods of signal control in future ground trainers.

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BOMBARDMENT TRAINING AT KELLY FIELD

The Bombardment Section of the Advanced Flying School, Kelly Field, Texas, has been reconstituted, beginning with the present class which began training on March 1st. Major John V. Hart, Air Corps, was detailed Chief of the Bombardment Section, and he is assisted by 1st Lieuts. Delmar T. Spivey, Roger J. Browne and Roy D. Butler, who are at present conducting a class of ten students, all Flying Cadets.

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CHANGES IN PERSONNEL AT KELLY FIELD

When flying started at the Advanced Flying School, Kelly Field, Texas, on March 1st, for Class 38-B, the following shifts in officer personnel were accomplished:

Major John V. Hart was relieved as Chief of the Pursuit Section and detailed as Chief of the Bombardment Section.

Captain Burton M. Hovey, Jr., was relieved as Flying Instructor, Pursuit Section, and detailed as Chief of the Pursuit Section.

First Lieut. Edgar R. Todd was relieved as Flying Instructor, Observation Section, and assigned to the 64th School Squadron to assume the duties of Squadron Engineering and Operations Officer.

First Lieut. Delmar T. Spivey was relieved from assignment to the 12th Air Base Squadron and assigned as Flying Instructor of the Bombardment Section.

First Lieut. Roger J. Browne was relieved as Flying Instructor, Pursuit Section, and assigned as Flying Instructor, Bombardment Section.

First Lieut. William G. Bowyer was relieved from assignment to the 64th School Squadron and assigned to Headquarters, Kelly Field.

First Lieut. John H. Bundy was relieved from assignment to Headquarters, Kelly Field, and from attachment to the Detachment of the 7th Signal Service Company, and assigned to Headquarters of the Air Corps Advanced Flying School and detailed as Flying Instructor, Pursuit Section.

First Lieut. Roy D. Butler was relieved as Flying Instructor, Pursuit Section, and detailed as Flying Instructor, Bombarement Section.

First Lieut. Charles F. Densford was relieved from assignment to Headquarters and Headquarters Squadron and assigned to Headquarters of the Air Corps Advanced Flying School and detailed as Flying Instructor, Observation Section.

First Lieut. Daniel S. Campbell was relieved from assignment to the 61st School Squadron, assigned to Headquarters, Advanced Flying School, and detailed as Flying Instructor, Pursuit Section.

First Lieut. Charles A. Clark, Jr., was relieved from assignment to the 62d School Squadron and assigned to Headquarters and Headquarters Squadron.

First Lieut. David N. Crickette was relieved as Flying Instructor, Pursuit Section, and reassigned as Flying Instructor, Attack Section.

First Lieut. Robin B. Epler was relieved from assignment to the 63rd School Squadron, assigned to Headquarters, Advanced Flying School, and detailed as Flying Instructor, Observation Section.

First Lieut. Chester L. Sluder, Air Reserve, was relieved from assignment and duty as Flying Instructor, Observation Section, and reassigned to duty as Flying Instructor, Pursuit Section.

SAN ANTONIO AIR DEPOT A BUSY PLACE

The Depot Supply Department of the San Antonio Air Depot, Duncan Field, Texas, which is at all times busy in its functions of supplying stations in this Control Area, but which is usually too modest to talk about itself, according to the News Letter Correspondent, set a new high in the amount of freight which it handled during the month of January, 1938. Freight moved by air through this department totalled 152,167 pounds, this including 69,221 pounds of incoming freight and 82,946

All Arkansas National Guard Air Corps supplies have been transferred from the Fairfield Air Depot to the San Antonio Air Depot; also the branch of the Air Corps Technical School at Denver, Colo., is now being supplied by this Depot.

A loading dock is being constructed at the Operations hangar for the purpose of expediting freight. Through freight can be transferred without having to go to the Depot Supply Department proper. Loads for transport scheduled for arrival over the week-end or holidays will be held in this "freight depot" and loading and unloading can be accomplished with a minimum of effort and personnel and without delay of trip.

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BOARD OF OFFICERS VISITS COLLEGES

Lieut. Colonel Coleridge L. Beaven, Medical Corps; Major Isaiah Davies and 1st Lieut. Robert F. Fulton, Air Corps, were designated as a board of officers to visit colleges in the States of Texas, Arizona, New Mexico, Colorado, Kansas, Oklahoma, Arkansas, Missouri, Iowa, Nebraska, North and South Dakota, and Minnesota, for the purpose of accepting qualified candidates for flying training at the Army Air Corps Training Center at Randolph Field, near San Antonio, Texas.

These officers, traveling in two BT-9 airplanes, left Randolph Field on February 14th, and were scheduled to travel through the above-named States for about two months, visiting the following-named educational institutions:

Rice, Houston; Baylor, Waco, and S.M.U., Dallas, in Texas.
Oklahoma University, Norman, Okla.
Arizona University, Tucson, Arizona.
New Mexico University, Albuquerque, N.M.
Denver University, Colorado School of Mines, and University of Colorado, all at Denver, Colo.
Kansas A. & M. College, Manhattan, Kans
University of Missouri, Columbia, and Washington University, St. Louis, in Missouri.
University of Iowa, Iowa City, Iowa.
University of Minnesota, St. Paul, Minn.
North Dakota Agricultural College, Fargo, N.D.
University of Nebraska, Lincoln, Neb.
University of Arkansas, Fayetteville, Arkansas.

20TH PURSUIT GROUP IN DEMONSTRATION

As their part in the tactical demonstration held at Barksdale Field, La., in February for the students of the Air Corps Tactical School, of Maxwell Field, La., the 20th Pursuit Group furnished nine P-26A airplanes for a mass gunnery demonstration. This tactical maneuver has been one of the important parts of the training during the past year. Normally, three flights of six planes each, (three 2-ship elements comprising a flight) fire on a flight of silhouette targets representing a flight of Bombardment airplanes.

In the diving attack, the flights are echeloned down and well up under the flight ahead so that ejected cartridges will not strike planes in the rear of the formation. Within the element the wingman does not aim but guides on the element leader, depending on him for effectiveness of fire.

Due to the fact that boresighting plays such an important part in the firing of the guns mounted on a P-26A airplane and the range at which fire is delivered is so great, phenomenal results have not as yet been accomplished. "We hope," says the News Letter Correspondent, "the new airplanes with guns mounted close to the sights will give much better results."

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Things one should know about automobile insurance. These are of especial interest to service personnel.

1. Automobile Insurance covers civil action only.

 It does not cover criminal action.

2. The Department of Justice will defend service personnel involved in an automobile accident, if at the time of the accident travel was being performed under competent War Department Orders. They demand, however, that they have exclusive defense of the case.
3. Service personnel involved in accidents while traveling under competent War Department orders have the privilege of requesting trial by Federal Courts.

TECHNICAL SERGEANT ELIGIBLE LIST

In the issue of the News Letter of March 1, 1938, listing on pages 12 and 13 Staff Sergeants of the Air Corps eligible for promotion to Technical Sergeant, only the first 250 names on that list were published. For the information of all concerned, the total number of Staff Sergeants on the eligible list is 840.

STUDY OF MARCH FIELD SITE 20 YEARS AGO

By the News Letter Correspondent

Two decades ago investigations leading to the establishment of a primary aviation training base at what is now known as March Field were closed in Riverside by a special government commission headed by Major B.F. Castle, Signal Corps.

Just prior to the establishment of March Field as a training base, statements to various southern California papers that "North Island will remain the only permanent Army Air Base on the Pacific Coast" were declared to be false, and reasons were cited to show why the March Field site would be an advantageous location.

On January 16, 1918, the Riverside, Calif. PRESS stated: "A splendid level tract of 460 acres, including a well which yields 30 inches of domestic water, has been offered to the government by the Riverside Chamber of Commerce through the Los Angeles chamber, with a guarantee of three years rent free and an option to purchase at not more than $100 per acre. The property is principally owned by the Hendricks estate.

"Not only are rainfall, aerial and general climatic conditions ideal in this location for such training school as contemplated, but the tract is surrounded by thousands of acres with scarcely a tree, mound or wire to interfere with safe landing in case the aviators are forced to come down at any other spot than the field itself."

An investigation report reads in part: "This Alessandro site is superior to any other (officials had been considering the selection of a site near Taft, California) because 30 per cent more flying could be done there than in any other section of the country. Wind velocity, with an average that varies only between 20 and 25 miles per hour, is regarded as ideal for student aviation purposes, and the almost complete absence of fog and a minimum of rainfall adds greatly to its desirability."

It is interesting to note the result of the far-sightedness of those investigations which took place 20 years ago and led to March Field's eventual and present modern status. For instance, had a less practical site been chosen, it would be of little import today either as a training center or an air base. The ease with which the landing mat may be extended, and the hard unyielding quality of the earth permits access to March Field for airplanes of any size or weight. Its close proximity to Los Angeles, metropolitan area, and the country's airplane manufacturing center, gives it strategic value in time of war. It can readily be enlarged enough to handle two or more war-strength Groups.

AIR CORPS STATION HAS RADIO SCOUT CAR

"Not to be outdone by municipal and State police forces with their radio scout cars," says the Barksdale Field Correspondent, "Barksdale Field can now boast of such an addition to its already super efficient security guard.

"This scout car, with a radio receiver tuned in on WYL, the Airdrome Control Station, cruises over the post from darkness until daylight and, should it be desired at any particular place, a call to the Airdrome Control Station will bring it there 'Johnnie on the spot.' There is also a radio receiver installed at the guard house to receive all messages broadcast to the scout car and, should the occasion demand, additional guards could be dispatched from the guard house without delay.

"To the best of the writer's knowledge this is the only car of this type in use at an Air Corps station. However, to avoid any controversy, the writer admits that his knowledge of such things is very limited."

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VISITING AIRCRAFT CREW AT BOLLING FIELD

During the calendar year 1937, the Visiting Ship Hangar Crew at Bolling Field, D.C., established what they consider should be a record for the handling of visiting aircraft.

The crew is under the leadership of 2nd Lieut. Harvey W. Regan, Air Reserve, and Technical Sergeant Robert B. Norris, and consists of four noncommissioned officers and eleven privates assigned to the crew from the Base Headquarters and 14th Air Base Squadron.

During the past year they have handled a total of 2,985 transient airplanes, without accident to aircraft or injury to personnel. The crew has handled practically every type of airplane operated by the Air Corps and piloted by most of the highest ranking Air Corps officers with passengers such as Government officials, Members of Congress and ranking officers of other branches.

On numerous occasions individuals have voiced their appreciation of the efficiency of the visiting Hangar Crew and, says the News Letter Correspondent, "the record of 1937 we believe establishes a record for the handling of individual transient airplanes."

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Lieut. Colonel Oliver P. Echols, of Wright Field, Ohio; Lieut. Colonel Edmund W. Hill, Hqrs. 6th Corps Area, Chicago, Ill., and Major John E. Upston, Langley Field, are under orders to report for duty as students at the Army War College next September to pursue the 1938-1939 course.

GENERAL BRANT DEPARTS FOR NEW POST

Prior to departing for Chanute Field, Rantoul, Ill., where he will assume charge of the Air Corps Technical School, Brigadier General Gerald C. Brant, Commanding Officer of the Second Wing, GHQ Air Force, was bidden farewell by the commissioned and enlisted personnel at Langley Field, Va., on the morning of March 1st.

In leaving, General Brant expressed his pleasure at having been assigned to this post for the past twelve months and stated that he was sorry to leave.

General Brant came to Langley Field in March, 1937, succeeding Brigadier General Henry C. Pratt, who was transferred to Maxwell Field, Ala.

Succeeding General Brant will be Colonel Arnold Norman Krogstad, Air Corps, who was nominated by the President for the rank of Brigadier General. Colonel Krogstad is expected to arrive at Langley Field in the near future from Kelly Field, Texas, where he has been on duty as Commandant of the Advanced Flying School.

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SOLDIER'S MEDAL PRESENTED LIEUT. BULGER

At a colorful and impressive ceremony held on February 26th at Langley Field, Va., 1st Lieut. Joseph A. Bulger, Air Corps, of the Headquarters and Headquarters Squadron, 8th Pursuit Group, was presented the Soldier's Medal and citation, for distinguished valor in rescuing a little girl from drowning in the waters of Chesapeake Bay last May. Lieut. Bulger was a guest aboard a cabin cruiser from which the child was thrown overboard when a swinging door became unlatched in rough water. Fully clothed, he plunged into the waves and kept the child afloat until they could be rescued.

In presenting the medal, Major General Frank M. Andrews, Commanding General of the GHQ Air Force, stated:

"Lieut. Bulger, it is my privilege and pleasure, as commander of the GHQ Air Force, to present you this Soldier's Medal. May I congratulate you and express to you the gratification of the GHQ Air Force for the example of courage and heroism you have afforded us.

"The history and traditions of military organizations are created and continued only through the accomplishments of its members. Individual acts of courage, such as displayed by you in risking your life to save that of another, serve to build up that history and tradition.

"The GHQ Air Force is indebted to you for your contribution to its tradition for courage and loyalty to high ideal."

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ACTIVITIES OF THE 18TH PURSUIT GROUP

By the News Letter Correspondent

Obtaining a head start on the annual Hawaiian Department Maneuvers, the 18th Pursuit Group, Wheeler Field, T.H., spent the week-end of January 14th in the field at Haleiwa. Clearing the airdrome on Friday morning, the Group journeyed to the camp site, where tents were pitched and preparations were made for a quiet week-end on the beach.

A field problem was completed during the afternoon, and an inspection was held by the Group Commander on Saturday morning. All Squadrons were back at Wheeler Field before noon on Saturday, none the worse for their night in the guava bushes.

Considering that the Group flies five days and three nights a week during twelve months of the year, one accident for the current flying month can be regarded as an insignificant blot against an otherwise perfect record. The accident referred to occurred on February 7th, when two P-12E's, piloted by Lieuts. Frutchey and Rindom came to blows in mid-air, 4,000 feet above Fort Shafter. Lieut. Rindom elected to disregard the slight damage to his ship, and flew it safely to Wheeler Field, where he made a spectacular landing. Lieut. Frutchey, however, was forced over the side when he saw bits of his upper wing disappearing in the slipstream. With the exception of a few minor scratches, received when he landed in a tree, Lieut. Frutchey was unhurt.

Another probable accident of indeterminable extent was averted by the cool headedness of Staff Sergeant McCauley. "Mac" was flying the newly acquired S-43 Amphibian, carrying twelve passengers, when one wheel of the retractable landing gear stuck in the "down" position and refused to be budged. Although the other wheel could be lowered, sufficient pressure to uphold the impact on landing could not be applied. After circling the field several times, and disregarding the radio advice to abandon the ship, Sergeant McCauley forced the obstinate landing gear up by pouring a tank of drinking water into the olio. With the gear up, a water landing was made at Pearl Harbor with no damage to the ship.

Fifty students, comprising an equal number of officers and noncommissioned officers of the Group, were recently graduated from the Chemical Warfare School. This type of education, instituted in the Group last year, is under the supervision of the Department Chemical Warfare Officer and is considered an indispensable phase of military training. Diplomas were presented to the graduates by the Wing Commander, Brigadier General Barton K. Yount.

V-7664, A.C.

PRIMARY FLYING CLASS REACHES RECORD PROPORTIONS

Since the previous issue of the News Letter, listing students entering the March, 1938, class at the Primary Flying School, Randolph Field, Texas, 77 additional candidates have been selected for Flying Cadet appointment, while nine of those previously selected declined appointment, so that as far as it is possible to determine at this writing, the new class now consists of the record number of 321 students, numerically the largest class of students ever to begin training in the history of the Air Corps Training Center.

The nine candidates, who for various reasons declined appointment, are:

Galasso, Louis Francis	East Boston, Mass.
George, William C., Jr.	Jamaica Plain, Mass.
Cassell, Raymond W.	Baxter Springs, Kans.
Mallinson, Hiram R.	New York, N.Y.
Grambo, Frederick C.	Cleveland Heights, Ohio
Easley, Samuel James	Fort Worth, Texas
Flowers, Noel Q.	Silverdale, Wash.
Guyton, John A.	Newell, W.Va.
McQuaid, Lynn, Jr.	Salem, W.Va.

The 77 additional candidates selected since the last list was published in the News Letter are enumerated below, as follows:

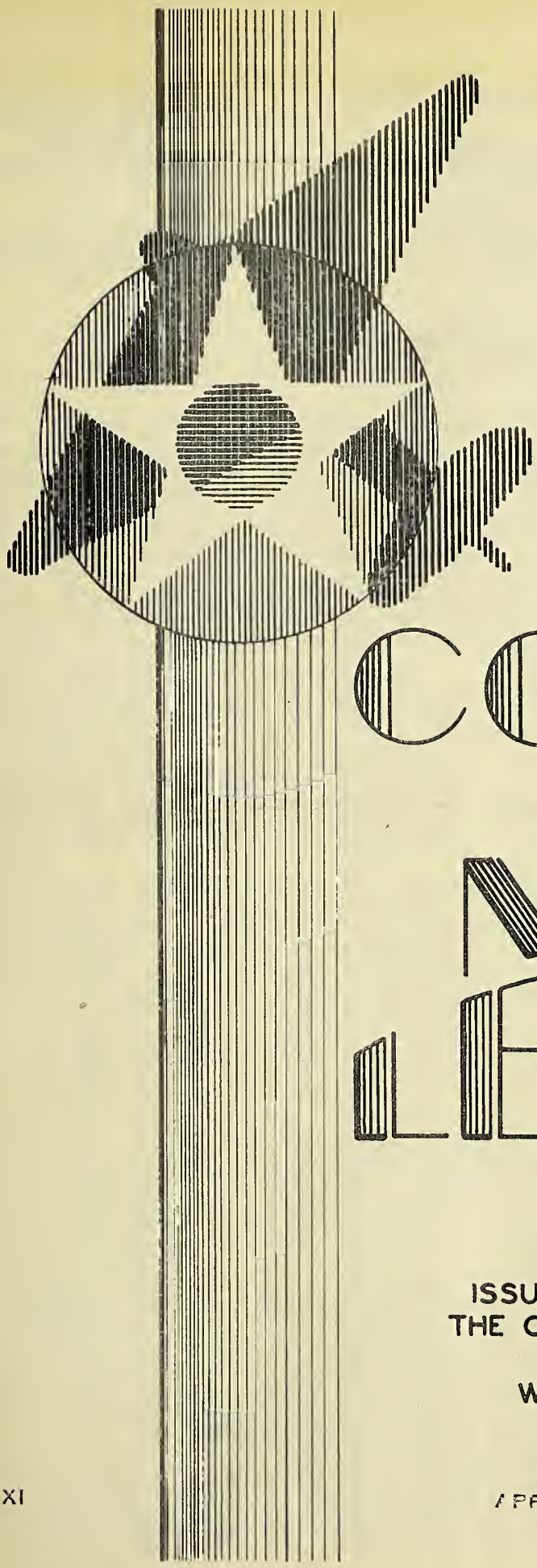
Hardin, Donald William	Chatchee, Ala.
Pond, James Woodrow	Fayetteville, Ark.
Carpenter, Harry Jack	Berkeley, Calif.
Lanford, William A.	Fresno, Calif.
Aylworth, Lowell P.	San Francisco, Calif.
Medley, Russell C.	Visalia, Calif.
Driver, Malcolm McKay	Washington, D.C.
Holt, Harry Joseph	Washington, D.C.
McLain, John Edward	Washington, D.C.
Paletz, S. Arthur	Washington, D.C.
Pallister, Francis James	Washington, D.C.
Walther, John Henry	Washington, D.C.
Brown, Edward Dean	Atlanta, Ga.
Turner, Sullins Preston	Atlanta, Ga.
Carmack, John Edgar	Decatur, Ga.
Rose, Charles W.	Galesburg, Ill.
Deehaene, André Jacques	Champaign, Ill.
Petry, Robert G.	Champaign, Ill.
LaChapelle, Lawrence V.	Chicago, Ill.
McIlvoy, Jack Claud	Chicago, Ill.
Merritt, Frederick Ross	Chicago, Ill.
Moore, Paul L.G.	Chicago, Ill.
Pierce, Galen Potter	Chicago, Ill.
Retzloff, Albert F.	Chicago, Ill.
Schwind, Burton Eugene	Chicago, Ill.
Setchell, James Frederick	Chicago, Ill.
Shelton, Glen E.	Chicago, Ill.
Waller, William, III	Chicago, Ill.
Jack, Norbert J.	Harvey, Ill.
Smith, Donald Herrick	Chicago, Ill.
Bleightol, Willis Eugene	Webster City, Iowa
Coyle, Lawrence	Coffeyville, Kans.
Mayden, James D.	Junction City, Kans.
Hooks, Ferrell Douglas	Bowling Green, Ky.
Howard, James Alva	Bowling Green, Ky.
Fields, James Robert	Lexington, Ky.
Pritchard, Robert Lee	Lexington, Ky.
Thompson, Edgar LeRoy	Lexington, Ky.
Collins, Smith W.	Bradford, Mass.
Sutliffe, Thomas Henry	Fort Devens, Mass.
Erickson, John Hawley	Gloucester, Mass.
McNerney, Francis J.	Westfield, Mass.
Navickas, Alphonsus F.	Worcester, Mass.
Romberg, Edgar Allen	Lincoln, Neb.
Piper, Thomas Joseph	Omaha, Neb.
Campbell, Jack McNiel	Albuquerque, N.M.
Birchard, Glen R.	Bay City, Mich.
Clancy, Lawrence, 3d	Oswego, N.Y.
Wassell, Harry B.	Rye, N.Y.
Pitts, Arthur Willis	Akron, Ohio
Harshberger, William Lee	Cincinnati, Ohio
Tucker, Theodore W.	Columbus, Ohio
Bane, Donald R.	Norman, Okla.
Kelly, Samuel E.	Norman, Okla.
Storm, Leonard B.	Norman, Okla.
Von Tungeln, Herbert A.	Norman, Okla.
Brewer, Paul M., Jr.	Oklahoma City, Okla.
Coats, Thomas R.	Oklahoma City, Okla.
Summers, Thomas B.	Weatherford, Okla.
Oeltmann, John Theodore	Charleroi, Pa.
Hill, Francis Joseph, 3d	Philadelphia, Pa.
Fendrich, Charles Nelson	Steelton, Pa.
Camp, Marshall Pyron	Arlington, Texas
LaBorde, Arthur Joseph	El Paso, Texas
Sheehan, James E.	Friona, Texas
Duke, Frank Robert	Livingston, Texas
Glober, George Edward	San Angelo, Texas
King, Preston	San Marcos, Texas
Titus, Calvin P., Jr.	San Antonio, Texas
Berger, Martin	Burlington, Vt.
Garrett, Skidmore N.	Richmond, Va.
Mathewson, Philip L.	Richmond, Va.
Galer, Frederick Gerard	Seattle, Wash.
Watson, Harry John	Wellsburg, W.Va.
Merrill, Kenneth E.	Eau Claire, Wis.
Wrigglesworth, William J.	Eau Claire, Wis.
Busch, Chester C.	Kenosha, Wis.

There are more native Texans in the new class than ever before represented that or any other State in any one of the previous entering classes in the history of the Air Corps Training Center. The Lone Star State has a delegation of 44 students. Illinois is the runner-up with 36 students, followed by West Virginia with 21; California, 19; Ohio, 18; Oklahoma, 15; New York, 14; Massachusetts, 12, and Michigan, 11. All other States have representations of less than ten.

Chicago is far in the lead in the matter of cities represented in the March class. With a delegation of 22 students, the mid-western metropolis has established a new record and one which will probably not be equalled for years to come. Washington, the capital of the nation, is next in line with 12 students, followed by Cleveland, Ohio; Austin and San Antonio, Texas; Columbus, Ohio, and Atlanta, Ga., with 5 each; Lubbock, Texas; Seattle, Wash.; San Francisco, Calif., and Norman, Okla., with 4 each; and Dallas, Texas; Tucson, Arizona; Little Rock, Ark.; Lexington, Ky.; Oklahoma City, Okla., and Champaign, Ill., with 3 each.

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The unique cover for this issue is the joint effort of Pvt. 1st Cl. John L. Horn, 97th Obs. Squadron, Mitchel Field, N.Y., and Mr. Frank Dunnington, of the Information Division, OCAC. Private Horn is responsible for the centerpiece, which must have been a rather difficult and tedious task, requiring patience, care and considerable skill on the typewriter. Mr. Dunnington, who designed many News Letter covers in the past is responsible for the attractive lettering and ornamental work. Gracias to both.



AIR CORPS NEWS LETTER

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WAR DEPARTMENT
WASHINGTON D. C.

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Dunnington—

VOL. XXI AIR CORPS NEWS LETTER NO. 7.

Information Division
Air Corps

April 1, 1938

Munitions Building
Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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FORMATION FLYING ON INSTRUMENTS

By the Hamilton Field Correspondent

On a recent flight to Barksdale Field, Shreveport, La., with a formation of four B-18 airplanes of the 11th Bombardment Squadron, Hamilton Field, Calif., it was necessary to fly on instruments from Hamilton Field to Bakersfield, Calif., the time involved being approximately one hour and thirty minutes. Inasmuch as the technique used for formation flying through this frontal area is believed to be of general interest, the following is noted:

The flight took off from Hamilton Field and climbed to an altitude of approximately 3,500 feet until the vicinity of Mt. Diablo was reached. A decision was then made to fly over or through a front which reduced visibility to near zero on the course to March Field. In general, the technique used was in accordance with that described in Group orders.

About three minutes before the front was penetrated, definite communication by radio was established with all planes of the flight and instructions were issued to stand by for command to fly over or through the overcast ahead. Instructions were also issued at this time that, in the event we did not get on top by the time the formation reached an altitude of 8,500 feet, instructions for front penetration in accordance with Group orders would obtain. As a matter of fact, this order was thoroughly discussed with all airplane commanders before the take-off, and they were also familiar with the flight plan which called for an altitude of 8,500 feet, on the flight to March Field, on a course of 117 degrees magnetic.

It should be mentioned at this time that instructions were given before the take-off that, in the event it became necessary to fly through a front, the second flight, which in this instance consisted of but one plane, would fly at an air speed of 10 miles per hour less than that of the leading flight. This was not to hold true in the event of ascent through overcast but only in case of penetration of front. These instructions were somewhat at variance with the above mentioned order, but were deemed advisable in view of the fact that, if both flights maintained the same airspeed and were at the same altitude over an extended period of time with only two-minute intervals between flights, it might have been possible for the second flight to overrun the first flight.

Just before the front was penetrated, the navigator took the drift, which was plus 10 degrees, changing the desired course to 127 degrees instead of 117 degrees as formerly planned. Immediately thereafter, the command for ascent over overcast was given and acknowledged by all airplane commanders. After climbing to an altitude of 8,500 feet (still in overcast), the lead plane, piloted by Lieut. J.H. Atkinson, leveled off and attempted to obtain an airspeed of 145 miles per hour (cal.) on a course of 127 degrees. However, due to icing conditions and the altitude, an airspeed of 145 miles per hour could not be maintained, and it was necessary to reduce the airspeed to 135 miles per hour. Fortunately, the other planes of the formation were contacted by radio and informed to reduce their speed accordingly - the second flight now maintained an airspeed of 125 miles per hour.

Snow static interfered with radio communication at this time, and it can readily be seen that communications will often fail under these conditions. It is believed extremely important to foresee such conditions as not being able to maintain the airspeed as directed before entering the overcast while communication is definite.

Throughout the flight, violent snow and rain squalls were encountered which immediately broke all wing antenna wires, but except for brief periods while flying through snow squalls, communication with all planes was maintained. Considerable ice was encountered, which appeared to be a cross between clear and rhyme, but the de-icers kept the airfoils practically free of ice. However, the command antenna masts vibrated badly at times, due to ice, and it appears that the de-icer boots on these masts are not entirely satisfactory. At one time it was necessary to open the navigator's hatch and hit the front mast in order to free it of ice.

V-7676, A.C.

About ten miles north of Bakersfield, the formation broke out in the clear, and both wing men were about three miles from the lead plane on their respective flanks. Inasmuch as the second flight had been instructed to fly at reduced airspeed, it was about 29 miles behind, but joined the formation after it had circled Bakersfield for about five minutes.

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CELESTIAL NAVIGATION TEST BY 88TH RECONNAISSANCE SQUADRON

By the Hamilton Field Correspondent

With two B-18's, the 88th Reconnaissance Squadron of Hamilton Field, Calif., made two flights across the Gulf of Mexico to qualify flight personnel for Celestial Navigation, the flight being required by the GHQ Air Force as a final test for the course in that subject. Two navigators were carried in each airplane, one performing the actual navigation of the airplane and the other doing a follow-the-pilot type of navigation, wherein he plotted his landfall on his chart and computed his error independently. The Squadron Commander's airplane carried Major Newton Longfellow, Lieuts. G.E. Pierce, H.F. Bronson, Staff Sergeant G.E. Miller and Private, 1st Class, J.C. Slough. The second B-18 was crewed by Lieuts. R.R. Walker, A.J.Jones, T.S. Faulkner, Staff Sergeant C.A. Davis and Private, 1st Class, S. Tower. Major Longfellow and Lieut. Walker were the pilots; Lieuts. Pierce and Jones, co-pilots, and Lieuts. Bronson and Faulkner, navigators. Staff Sergeants Miller and Davis were the engineers, and Privates Slough and Tower, radio operators.

The B-18's took off at a 15-minute interval from Hamilton Field on the evening of Monday, March 14th, and landed at Kelly Field, Texas, via March Field, Calif., on Tuesday afternoon. The next morning, at 9:00 o'clock, they took off separately and flew to a point where the 28th parallel meets the coast of Texas, and from there along the parallel out over the Gulf of Mexico for a distance of 888 miles to Florida, where a landfall was made on Tampa. The two navigators in one crew had errors of 14 and 18 miles, while the two navigators in the other crew had errors of 6 and 2 miles. The airplanes landed at the United States Coast Guard Station at St. Petersburg, Florida, where the six officers and four enlisted men were treated with real southern hospitality by the citizens of that community.

On Thursday evening, the airplanes took off before dark and started west over the Gulf again to perform landfalls on the Texas coast, one airplane doing a landfall on Corpus Christi and the other on Rockport, Texas. Both navigators of one airplane made errors of one mile on Corpus Christi, from where they proceeded to Kelly Field to spend the night. The navigators of the other crew had errors of five miles and one mile on Rockport, from where they flew to Randolph Field, Texas, for the night.

The return trip to Hamilton Field was started on Friday, and both airplanes arrived safely home on Saturday afternoon, March 19th. The flight totaled approximately 5,400 miles and was completed in a little less than five days, the flying time being about 34 hours.

The maintenance crews and radio technicians performed their work efficiently, and the airplanes functioned perfectly throughout the entire flight.

Lieut. Arnold, Weather Officer at Kelly Field, gave a forecast for the eastward flight across the Gulf. He predicted two fronts with the conditions along the route, which proved to be exactly as predicted. For the return trip, Lieut. Arnold sent a telegraphic weather report to Major Longfellow in Florida. This prediction was also accurate, and was of considerable aid on the westward crossing of the Gulf.

The flying weather was generally good during the trip. However, on the eastward flight across the Gulf of Mexico, the weather was obscured by fog and the sun played hide-and-seek through a high overcast for the greater part of the flight. The fog hindered dead reckoning navigation but made reliance on celestial navigation a reality, and as the resultant errors were well within the allowable limits of Celestial Navigation, the crews learned by actual experience that they can reliably depend upon the celestial method when it is really needed.

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The Materiel Division, Wright Field, in its material laboratory has recently had installed a new supercentrifuge in which from 30,000 to 40,000 revolutions per minute can be obtained. This is about ten times the speed of the usual centrifuge. It is of all metal construction. Used for the clarification of viscous liquids, tests can be completed in about 20minutes with this laboratory model which ordinarily would take a day. This type centrifuge is for experimental work only. It consists principally of a cylinder about two inches in diameter and about 10 to 12 inches in length, which fits in a compressed air turbo-driven centrifuge casing. With the numerous tests performed in the material laboratory, it will be in almost constant use.

V-7676, A.C.

CORDIAL LETTERS FROM GUATEMALAN REPUBLIC

In connection with the recent mass flight of the 19th Wing, Air Corps, from the Panama Canal Zone to Guatemala City, Guatemala, there are quoted below letters received from the President of that Republic and his Minister of Foreign Relations, viz:

"Office of the President
Republic of Guatemala

Guatemala, R. de Guatemala,
February 22, 1938.

Brigadier General George H. Brett,
Commander of the 19th Wing, A.C.,
Albrook Field, Canal Zone.

Dear General Brett:

Your favor of February 16, 1938, gives me the opportunity to express once again our pleasure and gratification with which your recent visit to Guatemala was received.

This visit and the cordiality extended towards it by the Government and the people of Guatemala have been a demonstration of the perfect 'Good Neighbor' relations which exist between the two republics.

I hope that in the near future you will be able to make another trip to Guatemala which will allow you to become more fully acquainted with this country.

I have the honor to remain,
Yours very truly,

(Sig.) JORGE UBICO."

"Office Foreign Relations
Guatemala
Central America

Guatemala, Republic of Guatemala
February 21, 1938.

Dear General Brett:

I have the honor to acknowledge receipt of your favor of February 16, 1938; the kind thoughts expressed therein have been most gratifying to me.

While acknowledging this letter I am taking the opportunity to assure you that it was a great satisfaction for the Guatemalan Government as well as for me personally to make the acquaintance of you, the dignified representative of the Air Corps of the U.S. Army, and of your distinguished officers.

We shall always remember the pleasant visit with which the squadron under your command has favored us; may I express my most cordial admiration for your personnel who, to be sure, have made many friends in Guatemala, who always will remember the kindness of the General and the officers of the 19th Wing.

I have the honor to remain,
Very truly yours,
(Sig.) CARLOS SALAZAR

Brigadier General Geo. H. Brett,
19th Wing, A.C.
Albrook Field, Canal Zone."

"GOOD WILL" FLIERS TAKE A BRIEF REST IN PANAMA CANAL ZONE

En route from Albrook Field, Canal Zone, the Air Corps flying field on the Pacific side, on the last leg of their return flight from Buenos Aires, Argentina, the six silver winged B-17 combat planes, commanded by Flight Commander, Lieut. Colonel Robert Olds, Air Corps, landed at France Field, the Air Corps flying field on the Atlantic side of the Canal Zone, at 8:45 a.m., February 26, 1938.

The six formidable flying fortresses stopped at France Field for the regular 40-hour periodic check and inspection to be made by the Panama Air Depot prior to the take-off for Langley Field, Va. During the 20-hour stopover, such repairs as were required were accomplished, the entire personnel of the Panama Air Depot remaining on "Alert Call."

The Flight took off from France Field at 6:31 a.m., Sunday morning, February 27, 1938, for a non-stop flight to Langley Field.

As a compliment to the officers of the South American Flight, a reception and dance was held at the Officers' Club at France Field on Saturday night, February 26th.

Satisfied to rest for a short while on the laurels of their record flight to the middle of South America, the six Army B-17's paused on the return flight for a two-day visit at the two Canal Zone air fields. The crews, who spoke glowingly of the cordial hospitality shown them by the South American countries they visited, were welcomed in the Canal Zone with a party given by the Albrook Field Officers' Club, followed by one at France Field the next night. Early the morning after they took to the air again on the non-stop flight to Langley Field.

With an international acclaim heralding this latest Air Corps achievement, a highly interested and excited assemblage of military personnel and civilians had gathered at Albrook Field prior to the arrival of the huge Bombers to witness an armada never before seen over the Isthmian Republic.

The four-motored giants winged into view from the east, wheeled overhead in echelon, beating the air with quiet ominous thunder, circled the field to land, and glided in turn onto the field with the agility of Pursuit planes.

The planes were parked on the line, and the spectators were afforded a good view of the triumphantly resting squat monsters. Above the cockpit of each, a small United States flag waved greeting.

Mechanics swarmed under the wings, blocked the wheels against the stiff dry season breeze, and proudly the new birds of war stood for inspection.

(Continued on Page 6).

EXCELLENT SERVICE RECORD OF O-46A PLANE

"We 'youngsters' in the Air Corps," says the Mitchel Field Correspondent, "hear many tales from the older troopers about the devotion of a man for his horse, and vice versa, especially as exemplified so often by mounted soldiers. We pay due respect to these tales, but sometimes we wonder if there isn't something to be said, too, for the obedience, response, and attentiveness to duty displayed by the flyer's basic item of equipment - the airplane.

O-46A type airplane, Air Corps No. 35-172, field number 102, assigned to the 97th Observation Squadron (Corps & Army) at the Mitchel Field Air Base, has been transferred to the Middletown Air Depot, Penna., for its first major overhaul and for a contemplated transfer to the Hawaiian Department.

'102' was originally flown in July, 1936, at the Douglas factory at Santa Monica, Calif., by Captain R.G. Harris, Air Corps. She was ferried to the East Coast by 1st Lieut. W.M. Prince, Air Corps, in September, and during the next seventeen months completed 1119:05 hours of flying time. Exactly forty pilots were instrumental in the compilation of this figure, and their army ranks ranged from Flying Cadets and a flying Warrant Officer through each successive stage to Colonel. Both the Base Commander and the Commanding Officer of the 9th Bombardment Group, GHQ Air Force, flew this ship. She carried four successful yet inadequate R-1535-7 'Wasp' engines to the overhaul shops. Never an itinerant being by nature, she did get on a cross-country to Texas last fall and made several trips to Florida and return. She was nursed and tended by seven crew chiefs in each grade from Private, 1st Class, AM 2nd Class, to Staff Sergeant. The first was Sergeant A. Spade; the last, Staff Sergeant A. Pollack. Insofar as personnel is concerned, her most permanent fixture was Technical Sergeant H. Skaggs, flight chief from September, 1936, to date of transfer. She performed a total of 858 missions and, although the actual number of different types of missions was not determined, let it be said to the credit of '102' that 'she completed all the Corps & Army missions she was called upon to do' in a manner befitting any good soldier. Her accomplishments may be viewed as a result of her own inherent characteristics, plus the technical and tactical efficiency of the men who tended her."

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Bids were recently opened at Wright Field, Ohio, for short-range amphibian airplanes, the bids based on quantities of from one to fifty. The Grumman Aircraft Corporation, Bethpage, Long Island, proved to be the only bidder.

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CONTRACT AWARD FOR AIRPLANE PARTS

The Honorable Louis Johnson, Acting Secretary of War, announced on March 25th the award of two contracts to the Douglas Aircraft Company, Inc., (Northrop Division), El Segundo, Calif., for the procurement of spare parts for Northrop Attack type airplanes in the total amount of $210,741.71.

These spare parts are for delivery at Air Corps depots and at stations whose tactical units are equipped with A-17A Attack Planes. These spares are to be used as normal replacements incident to routine maintenance.

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D.F.C. AWARDED TO LIEUT. BOUSHEY

General Orders of the War Department, recently issued, announce the award of the Distinguished Flying Cross to 2nd Lieut. Homer A. Boushey, Jr., Air Corps, "For heroism and extraordinary achievement while participating in an aerial flight on October 5, 1936, near Fort Lewis, Washington. While descending from an altitude performance flight in a new type airplane, a structural failure in the aircraft resulted in the loss of both ailerons, thereby causing the airplane to go out of control temporarily. After a descent of about 2,000 feet Lieutenant Boushey, the pilot, motioned to his mechanic to jump and then, by skillful use of the remaining controls and at the risk of his life, brought the disabled airplane to a safe landing. The courage, sound judgment, and skill displayed by Lieutenant Boushey resulted in great monetary savings to the Government and made possible an engineering study of the structural failure of this new type airplane."

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CHANGE IN COMMANDERS AT KELLY FIELD

An outstanding event at the Advanced Flying School, Kelly Field, Texas, recently, was the arrival of Colonel Frank D. Lackland, Air Corps, the new Commandant, who succeeded Brigadier General Arnold N. Krogstad. Colonel Lackland assumed the duties of School Commandant on Saturday, March 12, 1938. General Krogstad, commanding the field, was expected to depart from Kelly Field on March 25th for his new assignment and duties as Wing Commander of the Second Wing, GHQ Air Force, Langley Field, Va.

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Major General O. Westover, Chief of the Air Corps, made a brief stop at Kelly Field, Texas, on the evening of March 11th, to confer with Brigadier General Arnold N. Krogstad, Commandant of the Advanced Flying School, on matters pertaining to the Air Corps. General Westover then departed in an A-17 plane for Randolph Field, Texas.

RETIREMENT OF AN "OLD-TIMER" IN ARMY AVIATION
By the March Field Correspondent

Master Sergeant Carl T. Hale, Air Corps, who retired on February 28th, last, completed over thirty years' service in the United States Army, including two years' double timefor foreign service. He was born on February 18, 1887, at Sparta, Mo., and would have us believe that he was reared down in the Ozark Mountains where the owls and chickens are friends and roost on the same edge of the flour barrel, and where the town is so small that you have to swing in on a vine.

Beginning his military career on January 28, 1910, at Springfield, Mo., he spent his recruit days at Jefferson Barracks, Mo., and shortly thereafter he was assigned to Company "H," Signal Corps, at Fort Omaha, Neb., his first love. He remained with this organization until he was transferred to duty in Alaska, where he arrived in July, 1910, and was assigned to station at "Kotlik," located at the mouth of the Yukon River. His duties were that of engineer and operator of a wireless station for boats arriving and departing in the days before radio communication was perfected. The nearest neighboring town in those days was St. Michael, eighty miles from civilization. After two years of duty in Alaska, Sergeant Hale, in July, 1912, was again assigned to Fort Omaha, Neb., where he remained until September of the same year. It was in that month that the aeronautical career of Master Sergeant Hale began.

Having joined the Aviation Section, Signal Corps, he was assigned to duty at College Park, Md., and there was born the first organization of our present Air Corps. This organization at first consisted of ten officers and sixteen enlisted men, the equipment being three Curtiss and three Wright pusher planes. In the fall of 1912, the College Park School was moved to Augusta, Ga., for the winter period, but in February, 1913, it was moved to Texas City, Texas, the purpose being to provide aviation for the ground troops. In the summer of that year, the operating personnel at Texas City was moved to San Diego, Calif., leaving behind a small detachment to continue aeronautical work with troops.

The year 1914 saw the concentration of Army aviation training activities in the United States at San Diego. It was in 1914, said Sergeant Hale, that the old type planes then in use were discarded and the famous "Jennie" or Curtiss JN was introduced in the Army.

In April, 1915, the First Aero Squadron was ordered organized, under the command of First Lieut. Benjamin D. Foulois, now Major General, U.S.A., Retired, who, up to a little over two years ago, was Chief of the Air Corps. In July, 1915, this organization was ordered to Fort Sill, Oklahoma, for duty. In October, the Squadron was transferred to San Antonio, Texas. It is interesting to note, says Sergeant Hale, that this trip was the first overland movement of the then existing Air Service. The distance of 500 miles was covered in six days - then considered record time, but quite in contrast to our present methods of transfer which requires but three hours by air over the same route. "It wasn't long thereafter," he continued, "that we again moved, and this time to the Mexican Border, where we remained until the beginning of the world war."

It was in November, 1915, that Sergeant Hale was returned to San Diego, and when the 2nd Aero Squadron was organized in January, 1916, he was assigned thereto. Later, however, when this Squadron departed for service in the Philippines - being the first aviation squadron to travel to the Islands - Sergeant Hale did not accompany it but remained in San Diego with a school squadron. It was at this School that "Pop Hale," as he is affectionately called, received his first instruction in flying and how to become a "flier," as he puts it. The airplane used for instruction purposes in those days was called the "Martin T.T." It was the only one of that type and, incidentally, the last one. "I learned to fly after a fashion," says Pop, "but quit handling the controls to trouble-shoot these babies instead."

Among the stations at which Sergeant Hale saw service were Kelly Field, Texas; Mather Field, Calif.; Honolulu, Hawaii; Panama Canal Zone, and March Field, Calif. He has to his credit 26 years' service with Army aviation. He has been a noncommissioned officer for 24 years, and has held the grade of Master Sergeant for over 20 years. He is married and has two children - a married daughter and a grown son. He will make his home temporarily in the City of Riverside, Calif.

With the exception of his first enlistment, Sergeant Hale's entire service has been connected with Army aviation. We asked him about his greatest thrill in the service, and he replied: "On a cross-country in February, 1914 - seven hours, fifteen minutes in the air with Lieut. B.Q. Jones (now Colonel, Air Corps) as pilot, Corporal Howser and myself as passengers. Lieut. Jones was flying an old Burgess Wright, equipped with a Renault engine, V type. We were three thousand feet in the air, and Corporal Howser and myself were taking turns riding on the cowling trying to put out a fire which had started in the motor. Thanks to

fire extinguishers, we finally put out the fire. It must be remembered that in those days we had no such contraption as a parachute, and we had to ride it out with the good Lord and His arms around us. We landed safely, but it sticks out as the biggest thrill I ever received."

Reminiscing back over the years when our present Air Corps was just beginning to crawl, Sergeant Hale recalls very vividly some of our trail blazers, such as General Foulois, previously mentioned; Lieut. H.H. Arnold, now Brigadier General and Assistant Chief of the Air Corps; Lieut. Roy C. Kirtland, now Colonel, Air Corps (Inspector General's Department); Corporal V.L. Burge, now Lieut. Colonel, Air Corps, and also the first enlisted pilot of the Air Service; Private William C. Ocker, now Lieut. Colonel, Air Corps; Lieut. Frank P. Lahm, now Colonel, Air Corps, also the first Commanding General of the Air Corps Training Center; and Private L.D. Bradshaw, now Warrant Officer, U.S. Army, and army airplane pilot.

Asked what he thought of the progress of aviation today as compared with that of 1912, "Pop" replied: "Plenty, brother, we are still in the experimental stage. The present day aircraft will be about as much out of date five years from now as they were in the old days. Airplanes of tomorrow will not only be twice as large as they are today, but will ascend twice as high also."

Needless to say, Sergeant Hale's knowledge of the many difficult duties which he has performed, and his tact in dealing with aeronautical problems are characteristic of the high standards of efficiency of this soldier. Throughout his service he has always been high in the esteem of all his superiors. His loyalty and attention to duty, together with his excellent record, is most commendable, and should be an inspiration and an example to all enlisted men.

May the ensuing years of a well-earned retirement give you satisfaction in knowing that you, in a measure, helped to blaze the trail of aviation. Your tireless devotion to duty, your consideration for those under you, and your cheerfulness, will always endear you to your many friends, and which won for you the respect and admiration of everyone with whom you came in contact.

Many happy landings, Old Timer!

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Wright Field loses an unusually large number of its officers this year to the Army Industrial College. This number so far amounts to seven. Usually, not more than three officers are chosen to report for this duty. Those who are scheduled to pursue the course of instruction at the Army Industrial College for the next school year are Majors H.Z. Bogert, F.S. Borum, E.T. Kennedy, R.W. Propst, Capts. J.F. Connell, L.C. Craigie and C.S. Irvine.

AIR CORPS SOLDIER COMMENDED FOR BRAVERY

In an order issued at Barksdale Field, La., on March 16, 1938, Brigadier General F. L. Martin, Air Corps, Commanding the Third Wing, GHQ Air Force, highly commended Private John K. Gahr, Air Corps, for bravery during an aircraft accident. This order reads as follows:

"1. At 10:15 a.m., Saturday, January 22, 1938, Lieutenant David B. Lancaster, Air Reserve, as pilot, with Private, Air Mechanic 2nd Class John K. Gahr, 6830668 (Rad. Opr), 20th Attack Squadron, GHQ Air Force, as passenger, had a major airplane accident at Chapman Field, Miami, Florida. Lieutenant Lancaster was injured around the face and knocked unconscious at the time. Private Gahr, while not injured was dazed and badly shaken up. The airplane was smoking and in a severely damaged condition. Disregarding the extreme danger of fire, Private Gahr rushed immediately to the assistance of the helpless pilot and succeeded in removing him from the wreckage and further danger. This quick action on his part elicited universal praise from the personnel present at the scene of the accident.

"2. The Wing Commander desires to express his pride and satisfaction in the splendid action of Private Gahr, who by his total disregard for personal safety exemplified the highest tradition of the service.

"3. This order will be read to all organizations of this command at the next formation and a copy posted on all unit bulletin boards."

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"Good Will" Fliers in Panama

(Continued from Page 3).

And then, all faces turned involuntarily toward the south end of the field as a discordant rasp of two motors announced a lone B-6 Bomber warming up. A leader of many a proud review over Albrook Field in former days, swarmed over by admiring crowds at New Orleans a few years previous, it now justifies its remaining service by occasional mosquito dusting along the banks of the Canal. As it waddled toward the take-off end of the field, its ungainly lines evoked from the spectators many smiles of comparison. The pilot opened the throttle; two venerable Cyclones coughed, spat out the sudden charge of gas, and the outmoded Bomber broke into a snarl of senile defiance as it took the air for its home airdrome.

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Master Sergeant John Dolan, 44th Reconnaissance Squadron, Albrook Field, Canal Zone, was placed on the retired list on March 31, 1938, and advanced on the retired list to a 1st Lieutenant, under the provisions of the Act of Congress, approved May 7, 1932.

RECORD ATTENDANCE AT TRAINING CENTER

By the News Letter Correspondent

Prior to the organization of the Air Corps Training Center, the largest class to begin flying instruction after the establishment of the Primary and Advanced Flying Schools, entered Brooks Field in September, 1924, and consisted of 287 students.

After the organization of the Air Corps Training Center and up until the time that Randolph Field was occupied, the largest class of Primary students entered in the fall of 1929. Of these students, 132 entered March Field and 145 entered Brooks Field, or a total of 277 students for the two schools.

Up until the past year, the largest class entering Randolph Field consisted of 220 students. This class entered in November of 1931.

The class which entered Randolph Field in October, 1937, (284) was the largest class to begin flying training since the organization of the Air Corps Training Center and was just three students short of the previous record-breaking class.

As of March 23, 1938, there are 641 students present in the Air Corps Training Center, divided as indicated in the table which appears below.

By comparison with the above figures, it can readily be seen that the present class is considerably larger than any which has entered previously. It is also expected that there will be an even greater number of students in the Training Center in July, 1938, than there are at present.

The figures given below show students present in the Air Corps Training Center as of March 23, 1938:

	Primary	Basic	Advanced	Total
Regular Army Officers	20	73	2	95
National Guard Officers	9	0	0	9
Foreign Officers	0	0	6	6
Flying Cadets	339	99	93	531
TOTALS	368	172	101	641
Students estimated to be present in July, 1938	344	228	155	727
in Oct., 1938	344	213	205	762

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WHEN THE 31ST BOMBARDMENT SQUADRON MOVED TO HICKAM FIELD

January 20, 1938, at Hamilton Field, Calif., dawned bright and clear, the first good flying day in three weeks. Everyone in the 31st was eager to be flying, and consequently all planes were in the air.

Then, at 1:30 p.m., occurred the incident which changed all our preconceived plans. Major Taylor was contacted by radio and ordered to land immediately. Fifteen minutes later all other planes in turn received the same message. As personnel reached the ground, they were greeted with the news that this Squadron was packing immediately to move as a complete unit to the Air Corps' newest and largest airdrome - Hickam Field - sailing on the U.S. Army Transport REPUBLIC at noon on February 1st, only eight days away.

Needless to say, the first result was considerable consternation on the part of everyone - some wanted to go, some didn't, and the remainder were unmoved. Then, too, there was considerable to do and one wondered if it could be done in time.

The first problem was to determine who would go; 30 officers and 180 enlisted men were required and the 31st did not have this entire number available, due to recent foreign service periods and reenlistment difficulties. Within 24 hours, the Squadron Commander completed his organization, having the entire roster of Hamilton Field from which to choose.

Packing, of course, had begun immediately. Officers and noncommissioned officers' furnishings were called for the next morning, and a crew of carpenters and Quartermaster helpers went to work in earnest. Some seventy families to pack was no small order, nor was this by any means the largest order to be filled. All Squadron property for this full strength unit had to be assembled and crated - Quartermaster property, Ordnance, technical equipment - everything that a combat organization would

require to operate a new post.

A host of incidental items had to be crowded into the already well filled working hours. New personal equipment to be drawn, Air Corps and personal equipment to be turned in or exchanged, physical exams, discharges and reenlistments completed, rosters prepared, parental consent to foreign service duty for many minors had to be secured. Finally, all furnishings and equipment were taken to the dock, cars were delivered for transport, and the Squadron was ready for embarking.

Noon February 1st saw us taking our last look at the American mainland and beginning our voyage for Hawaii. Regarding the trip, little was unusual except the rough weather at the start which made seasick victims of many, including the Naval passengers. The latter part of the trip, however, was calm, and so Honolulu Harbor arrived on our starboard side on February 8th, as scheduled.

Again the rush to disembark, clear the customs, and find suitable living quarters. Concerning the first activities of the Squadron, the tent city for the men, arrival of the disassembled airplanes, and early changes in the organization there will be more later. Suffice it to say, everybody is enjoying the weather, but few like the looks of all the fatigue work to be done, incident to establishing a new Air Base along with regular squadron work on a full schedule.

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OFFICERS ASSIGNED TO TECHNICAL SCHOOL

Special Orders of the War Department, recently issued, direct the following-named Air Corps officers to report next fall for duty as students in 1938-1939 courses of instruction as indicated below:

DENVER BRANCH, AIR CORPS TECHNICAL SCHOOL

Photographic Course

1st Lieut. David W. Hutchison, from Selfridge Field, Mich.

Armament Course

1st Lieut. Clifford H. Rees, 2nd Lieuts. William F. Day, Jr., and Joseph B. Stanley, from Langley Field, Va.
2nd Lieuts. Eugene Brecht, Jr., and Harold L. Neely, from Selfridge Field, Mich.
2nd Lieut. Clayton B. Claasen, from Maxwell Field, Ala.

AIR CORPS TECHNICAL SCHOOL, CHANUTE FIELD

Communications Course

2nd Lieuts. Harold L. Kreider and Raymond P. Todd, from Selfridge Field, Mich.
2nd Lieuts. Joseph D. Lee, Jr., Glenn C. Thompson and Richard C. Weller, from Langley Field, Va.
2nd Lieut. Seward W. Hulse, Jr., from Chanute Field, Ill.
1st Lieut. William M. Canterbury, from the Philippine Department.
1st Lieut. Albert T. Wilson, Jr., and 2nd Lieut. Carl Swyter, from March Field, Calif.
1st Lieut. Richard A. Legg, from the Panama Canal Department.

Airplane Maintenance Engineering Course

1st Lieuts. Paul T. Hanley, Elvin S. Ligon, Lawson S. Moseley, Jr., Wilson H. Neal and 2nd Lieut. Clair L. Wood, from March Field, Calif.
1st Lieut. John J. Morrow, from Hamilton Field, Calif.
1st Lieuts. John M. Hutchison, Millard C. Young, from Mitchel Field, N.Y.
1st Lieut. Paul G. Miller and 2nd Lieut. Harry Coursey, from Langley Field, Va.
2nd Lieuts. Lester S. Harris and Arnold T. Johnson, from Selfridge Field, Mich.

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STATION ASSIGNMENTS OF GRADUATES OF COMMAND AND GENERAL STAFF SCHOOL

Six Air Corps officers, now on duty as students at the Command and General Staff School, Fort Leavenworth, Kansas, are relieved from this assignment and duty, effective upon the completion of their present course of instruction and assigned to duty at the Air Corps stations as indicated below, viz:

To March Field, Calif.: Major Eugene L. Eubank.

To Langley Field, Va.: Majors John W. Monahan, Frederick W. Evans and Theodore J. Koenig.

To Selfridge Field, Mich.: Major Harold H. George.

To Barksdale Field, La.: Major Younger A. Pitts.

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THE PHOTOGRAPHIC LABORATORY TRAILER

A Photographic Board met at Wright Field, Dayton, Ohio, on March 8th, to study the photographic laboratory trailer with a view to its standardization for the National Guard and Regular Army service. The photographic laboratory trailer was developed by the Materiel Division for the purpose of the accomplishment of quick development and printing of photographic negatives in the field. The officers in conference on this Board were Major George W. Goddard, of the Materiel Division; Captain H.K. Baisley, of Bolling Field, D.C.; Lieut. J.F. Thompson, of Fort Knox, Ky., and Lieut. W.M. Prince of Mitchel Field, N.Y.

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Upon the completion of his present course of instruction at the Air Corps Tactical School, Maxwell Field, Ala., Major Delmar H. Dunton, Air Corps, is assigned to duty at Langley Field, Va.

LESSONS FROM THE WAR IN SPAIN

The March-April issue of Army Ordnance carries the translation from the Italian of an article by Lieut. Colonel Emilio Canevari, Infantry Reserve, Italian Army, who saw service therein from 1908 to 1934, and who is the author of various articles on military topics. In the article now under discussion, headed "Forecasts from the War in Spain," he points out the lessons to be learned from this war based on technical and tactical experience.

Stating that the ever increasing complexity of warfare makes the employment of strongly led and highly trained troops absolutely imperative, he asserts that only such troops possess the ability to take the offensive and to maneuver. Hastily constituted levies may be capable of defending themselves in trenches or behind walls, but if one wishes to impose one's will upon the enemy, that is, to proceed either to the offensive or the maneuvering defensive, it immediately becomes necessary to possess troops of high professional standards and of a strongly developed military spirit. There should be no illusion on this point. With mere "enthusiasm" it is impossible to maneuver and to win. At best, one can only defend one's self, and this at the cost of heavy and unnecessary loss.

Touching on the employment of aircraft in the Spanish War, Colonel Canevari says:

"Great care is necessary in drawing conclusions from the use of aircraft in this civil war and applying them unhesitatingly to a possible European war. First of all, at the beginning of the conflict, there was no air force on either side in Spain. The air forces have constituted themselves, hesitatingly and gradually, step by step, as the conflict has developed. Nor did there exist an aircraft industry in the beginning. Thus air power has found itself essentially under the same conditions as during the World War when, scarcely born, it had to develop in the face of the most varied exigencies. Even today, air power on both sides is present only on a small scale.

Secondly, the Spanish territory was not prepared for the use of aircraft and least of all for large air forces, and thirdly, the aircraft received by both parties consisted of varied models which were not always of very recent date. Moreover, the pilots themselves were not always sufficiently - and above all, not homogeneously-trained. Last and not least, both sides for obvious political reasons have refrained from using gas (which is also true in the case of the artillery).

It is therefore reasonable to assume that the situation of aerial warfare in a European struggle would differ greatly from what it is today in Spain. In the case of a large war, aerial warfare would start with great masses of modern aircraft in full readiness on both sides, well armed and supplied with munitions, directed by perfectly trained pilots accustomed to act in concert. There would be, moreover, numerous bases and points of supply, powerful national air industries working at top speed, and large reserves of trained pilots. Finally, in a struggle of this character it is to be hoped, but is not at all certain, that gas will not be used.

After having made these necessary qualifications, let us now examine the results of the practical experiences gained in Spain. Speed has proved itself the fundamental quality of military aviation. The defensive fighting airplanes have shown themselves easily capable of triumphing over the enemy's aircraft, when these, as in the beginning, consisted of antiquated bombers capable of not more than 250 kilometers per hour (155 miles per hour). But when there appeared strongly armed modern bombers with a speed of over 400 kilometers per hour flying in squadron formation, the task of the defense became infinitely more difficult. In fact, the fighters of the Nationalist forces, despite their excellent qualities, have not been able to prevent piratical bombers flying at top speed from bombing their cities, and even as was more recently the case, roadsteads and the ships of the control powers.

Certainly, in actual fighting under equal conditions there always remains a certain margin of efficiency in favor of the fighting plane. But, as the initiative lies with the attacker, the bomber has a fair chance of reaching its objective before it can be attacked. This, however, has been demonstrated repeatedly in peace-time maneuvers.

Antiaircraft artillery of modern design (such as the German antiaircraft gun) has shown itself considerably more efficient than generally had been expected. This fact should not be belittled - just as it should not be exaggerated. The air defense of warships must be considered even more efficient, surrounded as they are with complete necklaces of antiaircraft guns. It is obvious that such defense will have its greatest efficiency on the high seas rather than while lying in port.

Assault or attack aviation has proved itself most formidable. It can be said without any exaggeration, considering the very significant episodes that have occurred in the Spanish war, that the special branch of assault aviation is

destined to constitute, if not a preponderant, at least a very important part of the air forces of tomorrow.

The action of aircraft employed in straight or diving attack against troops, motorized columns, and other such targets, has proved itself of the highest efficiency. What is even more important, it has had great demoralizing effect upon the troops attacked. The latter practically have not reacted at all nor have they been capable of doing so. Undoubtedly this fact had been foreseen, but foreseen in such a theoretical manner that in all armies men have continued to march and to group themselves into much the same formations as they did twenty years ago. It is necessary to convince ourselves that everything has changed in this respect and that today at every point and at every moment it will be necessary to take the fullest account of the danger from the air. The supreme effect of assault aviation in pursuit has been amply demonstrated by the Abyssinian War.

Thus one may say in summary the only really new factor that has appeared in the tactical field since the World War is the destructive and demoralizing power of attack aviation. It is also the only new factor tactically favoring the attack (or the counter-attack) as against the other modern factors, all of which favor rather the defensive. From the operative and strategical point of view it is obvious that the advantage will be with the side which possesses the larger and better organized attack aviation and so secures for itself predominance in the offensive.

Upon these facts are based the following conclusions:

1. The air force should be and in the future will be aimed at the general objectives of the high command, but it is certain that this employment will, in the great majority of cases proceed in cooperation with the land and sea forces.

2. The natural development of aviation leads it toward the creation of various tactical specialties (not to be confused with the collections of models with which certain air forces are afflicted) and not toward a unification of types. In this it follows precisely that road which must be taken by every arm as a result of technical progress and the multiformity of objectives in general warfare. Among these special branches attack aviation is rapidly demonstrating its importance because of its extraordinary efficiency.

3. Attack aviation cannot by its very nature be employed in mass formation. Its intervention must rather depend upon the choice of circumstances and the favorable moment. Thus in aerial warfare, as well as on the ground, it is easy to perceive that the natural tendency is against the employment of mass formations - an employment which forms the very negation of tactics and always must lead to disaster. It is a profound error, far too often found in Italy, to employ the term of 'creating mass' in the tactical domain to designate the concentration of forces, because this erroneous designation paves the way to a confusion in which 'mass' is mistakenly substituted for 'phalanx.' The concept of 'mass' is typical only of strategy and has no place in the consideration of tactics.

4. In aerial warfare, it is evident that predominance does not necessarily signify numerical superiority. In particular, numbers cannot completely compensate for deficiency in quality. Owing to the lightninglike character of its action, the air force finds itself capable of effective activity even when outnumbered. It is rather a question of daring, of maneuvering spirit, of fertility in devising tactical expedients, and the faculty of making use of every favorable incident. * * * *

In the field of land-air strategy, the aircraft directly allotted to the land forces (reconnaissance planes) favor rather the defensive, in so far as they help to eliminate surprise - the main advantage of the attacker. The air forces cooperating with the land forces, in particular in the special form of attack aviation, on the contrary tend to favor the attacker since they can be concentrated suddenly at a previously arranged point. Inestimable and ever growing in importance are the advantages which transport by aircraft offers to land operations in the tactical and logistical fields."

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TRAVELING BOARD ENROLLS FLYING STUDENTS

Lieut. Colonel C.L. Beaven, Medical Corps; Major Isaiah Davies and Lieut. R.F. Fulton, Air Corps, three officers from the Air Corps Training Center, Randolph Field, Texas, arrived on March 13th at Marshall Field, Fort Riley, Kansas, in two BT-9 airplanes, and proceeded immediately to Kansas State College, Manhattan, Kansas, where they conducted qualifying examinations for students aspiring to appointment as Flying Cadets. Twelve young men, who were qualified, were given short rides in the BT-9's on March 16th, after which the officers took off for the University of Missouri, Columbia, Missouri, to enroll students of that institution.

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Major Edwin E. Aldrin, Air Reserve, who some ten years ago resigned from the Air Corps to become aviation manager of a prominent oil company, has gone into business for himself as an aeronautical consultant in New York City.

WHO SAID SERVICE TEST INSTRUMENT?

By an Equipment Branch Engineer
Air Corps Materiel Division

Mr. Pilot, do you shudder when you hear the words "Service Test"? Do you say "Oh, oh! Here is where I get stuck with some extra work?" Do you lie awake nights praying that you won't have to have that particular S.T. instrument mounted on your airplane? Whether you do or not, please listen to my side of the story.

I am only a service test instrument. What is going to happen to me? Will I be made standard (I hope, I hope, I hope) and allowed to remain on an airplane through my prime of life or will I be discarded like a great many others because of my shortcomings? It is up to you, Mr. Pilot, to decide.

Please don't think I have been sent to your station just to cause you extra work in running tests and writing a report. I am sent with a definite purpose in mind. I may be an entirely new instrument for which it is felt there is a need, or I may be an improvement over a standard instrument, my existence being brought about by Unsatisfactory Reports from the Service. I may be a brain storm, but don't blame me for it. Don't recommend me for standardization just because I may be a handsome fellow. I would rather be discarded because of faults while I am on probation (S.T.) than get all hot and bothered about being a regular guy (standard equipment) and then have my ears cuffed down because of those faults which were not discovered while I was being service tested.

On the other hand, don't turn me down because of my commonplace appearance providing I do what is required of me. Please remember that the more thorough test you give me and the more you can say about me in your report, the better will be my final design (in case I am standardized) and the more I will be able to help you sometime when you are caught out in a thunderstorm and can't see the railroad tracks. (Oh, pardon me, I know you don't follow those any more.)

Remember, Mr. Pilot, the S.T. instrument of today will be the Standard Instrument of tomorrow.

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RETRACTABLE LANDING GEAR WARNING SIGNAL

The type B-3 signal assembly is being standardized at the Materiel Division, Wright Field, Ohio, for use in aircraft provided with retractable landing gear, to sound a warning when an attempt is made to land with the landing gear in the retracted position.

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GROUND OFFICERS' CONTACT COURSES

Following two groups each of 14 officers from Forts Knox, Thomas and Benjamin Harrison, who visited Wright Field, Ohio, during February, two similar groups of 12 officers each, headed by Colonel Marshall Magruder, 68th Field Artillery, and Colonel Bruce Palmer, 1st Cavalry, both from Fort Knox, Ky., visited Wright Field during the month of March

Each group remained at Wright Field for one week, during which time they attended lectures and demonstrations covering the general set-up of procurement engineering, power plant development, armament, propellers, radio, navigation equipment, photography and aerial mapping, etc. The physiological laboratory was visited, as well as the hangars, where the officers evinced great interest in several of the newest types of planes.

Each member of the classes was given an airplane flight during his stay at Wright Field. A trip through the Supply and Engineering Departments was included in the schedule, as well as a short talk on the gathering and dissemination of weather data.

According to the comments of these officers, their week's stay at Wright Field was highly instructive and greatly enjoyed. The only adverse comment heard was that their stay was not for two weeks instead of one. All the vivitors were housed in the Hotel D'Gink at Wright Field, and C.L. Blackford, the Operations Clerk in charge, intimated that if the rush of hotel business kept up he was going to join the Hotel Greeters of America.

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PORTABLE PHOTOGRAPHIC LABORATORY

The Materiel Division, Wright Field, recently dispatched the Type A-1 portable photographic laboratory to the Peter C. Knight Airport, Tampa, Florida, for cooperative work in connection with maneuvers being conducted by the GHQ Air Force. A supply of quick drying photographic paper will be used on these tests which will make it possible for prints to be delivered to the Staff two or three minutes from time of printing. This test will serve to determine the needs of this equipment for GHQ Air Force operations in the field. A subcommittee of the Air Corps Technical Committee recently met at the Materiel Division to consider the standardization of this equipment for service use.

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During the month of February the Engineering Department of the San Antonio Air Depot, Duncan Field, Texas, overhauled 14 airplanes and 34 engines and repaired 40 airplanes and 29 engines.

D.F.C. PRESENTED TO LIEUT. KELSEY

At the auditorium at Wright Field, Dayton, Ohio, on the morning of March 9th, 1st Lieut. B.S. Kelsey, Air Corps, was presented with the Distinguished Flying Cross in the presence of the officers of the post and his family and friends. The ceremony was opened by a very brief address by Brig. General A.W. Robins, Chief of the Materiel Division, who said that in achieving this award, Lieut. Kelsey not only brought honor to his command but to the whole Air Corps.

The citation which was read by Major A.W. Brock was as follows:

"Benjamin S. Kelsey, first lieutenant, Air Corps, United States Army. For heroism and extraordinary achievement while participating in an aerial flight. On December 24, 1936, at about 7:30 p.m., Lieutenant Kelsey was piloting an airplane from Mitchel Field, Long Island, New York, to Wright Field, Dayton, Ohio, flying at an altitude of approximately 1800 feet when the left motor instantaneously failed and the left wing burst into flames. By his outstanding courage, sound judgment and at the risk of his life, Lieutenant Kelsey maintained control of the airplane and, with great difficulty due to the darkness of the night and the glare from the burning airplane, effected a safe landing at Wright Field, thereby preventing the destruction to valuable Government property."

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FLIGHT TESTING THE NEWEST BOMBING PLANE

Flight testing of the giant XB-15, the Air Corps' most recent acquisition in the way of Bombardment airplanes, commenced the latter part of February, proving a matter of interest not only to Materiel Division personnel but to the country-side at large. The deliberation and majesty with which the big craft threads its way along the sky paths excite awe as well as interest in those watching from the ground. Major S.M. Umstead and Lieut. L.F. Harman have been at the controls during this flight test period. Preceding flight testing, the B-15 underwent thorough inspection at the hands of Materiel Division engineers, during which time large signs worded "keep out" formed her chief decoration. Inspection of this airplane meant the checking of miles (literally) of wiring, besides multitudinous other details, and at times there were as many as 18 workers following their respective jobs simultaneously in the huge interior. Acceptance flight tests are fast nearing completion, and it is expected that reports covering this phase of performance will be ready for forwarding to the Chief of the Air Corps in the near future. The more detailed performance tests are to follow, and it is believed that both acceptance and fuller performance reports will contain some exceedingly interesting information regarding the possibilities of this huge airplane.

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97TH OBS. SQDN. CELEBRATES ANNIVERSARY

The 97th Observation Squadron (Corps & Army), stationed at Mitchel Field, L.I., New York, celebrated its third anniversary on February 28th with a real-old-get-together.

There was another 97th Aero Squadron which served in the World War. It was organized at Kelly Field, Texas, in August, 1917; sailed from New York in October, 1917, but had no combat service while abroad. Returning to the United States on January 22, 1919, it was demobilized the following month, on February 3rd, at Garden City, L.I., New York.

The present-day organization was constituted at Mitchel Field on March 1, 1935, and the history and traditions of the war time unit consolidated with the new squadron.

From a 37-man squadron in 1935, the 97th has now developed into a well-rounded and self-sustaining M-day Corps and Army organization with all complete departments, including photo section and transportation. Although based at Mitchel Field, it does not work with the GHQ Air Force but is considered First Division Aviation and performs cooperative and command missions for all ground arm forces located in the First and Second Corps Areas. Equipped with Douglas O-46A airplanes and using various combinations of Regular and Reserve pilots as observer teams, this Squadron set an enviable record of successful aerial cooperative missions during the past summer training season, as well as conducting two periods of field training at Groton, Conn., and with the First Army Command Post Exercise at Fort Devens, Mass.

Of the original 37 enlisted men assigned to the Squadron at its inception in 1935, seven are still present, viz: Master Sergeant B. Roth, 1st Sgt. M.S. Tilghman, Staff Sgts. A. Pollack and A. Yonconish, Sgt. C.R. Yoder, Corp. F.S. Kalinowski and Private 1st Cl. P.E. Denning. The first Squadron Commander was Major G.E. Rice, Air Corps, who met his death in an airplane accident at Bolling Field on December 4, 1936. He was succeeded in turn by Captain A.J. Lehman and Major George C. McDonald. The present Squadron Commander is Major C.A. Horn.

The 97th Squadron (C & A) recently completed a pair of formation training flights from Long Island to Miami, Fla., and return, for the purpose of navigation training. The first element of four O-46A's, led by 2nd Lieut. R.E.Ellsworth,

Air Corps, included 2nd Lieuts. A.R. Anderson and M.F. Stunkard, Jr., Air Reserve; Staff Sgt. A. Pollack; Sergeant E. Stiffson and Corporal Kalinowski, with Captain D.K. Mumma, Air Reserve (Inactive) accompanying the flight in a Reserve airplane. They departed from Mitchel Field on February 15th and returned on the 17th. The second element of three O-46A's departed on March 1st and returned three days later with 1st Lieut. P.G. Meisenholder, Air Corps, as flight commander and including 2nd Lieut. W.C. Barrett, Air Corps; 2nd Lieut. L.M. Thomas, Air Reserve; Sergeant F.M.Baker, Corporal R.W. Wofford and Private 1st Cl. M.J. Ennis.

For the period of the 2nd Wing Exercises in the balmy South, and during the absence of a majority of the Base Transportation and driver personnel from Mitchel Field, the 97th Squadron is performing the essential base motor pool activities. Second Lieut. R.E.Ellsworth, Air Corps, has been appointed Acting Transportation Officer, and trucks and cars assigned to the Squadron have been removed from storage and pressed into service, while the squadron drivers are practicing hand signals.

First Lieut. R.H. Wise, Air Corps, was appointed Squadron Public Relations Officer, vice 2nd Lieut. A.G. Witter, Air Reserve, relieved.

Second Lieut. W.C. Barrett, Air Corps, was detailed as Officer in Charge of the Group Mess at Mitchel Field.

Among the hopefuls from the Regular Army who were ordered to the Air Corps Training Center for the March Class was Private Herbert F. Towner, of the 97th Observation Squadron. He attended the University of Oregon for two years and is a native of Santa Ana, Calif. Towner's military career included two years of ROTC (Infantry) at the Oregon school. He served at Mitchel Field from August,1937, to date of transfer, being assigned to duty in the Squadron Photographic Section. While attending high school in Santa Ana, he was active in football and baseball.

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The first of the ground officers' training courses of the year was held at Wright Field, Dayton, Ohio, from February 7th to 11th. A second group came to take the course from February 14th to 18th, and a third from March 6th to 12th. Approximately 15 officers have attended each of these training courses, which are for the purpose of acquainting ground officers more intimately with Air Corps procedure. The officers reporting at Wright Field for this duty were from Fort Benjamin Harrison, Indiana; Fort Knox, Kentucky; and Fort Thomas,Kentucky.

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ASSIGNMENTS TO C. & G.S. SCHOOL

Special Orders of the War Department, recently issued, direct the following-named Air Corps officers to report in September, 1938, for duty as students at the Command and General Staff School, Fort Leavenworth, Kansas, in the 1938-1939, course, viz:

From the Air Corps Tactical School, Maxwell Field, Ala., where they are now on duty as students:

Majors Albert F. Hegenberger, Reuben C. Moffat, Carlyle R. Ridenour, John F. Whiteley, Captains Orval R. Cook, Glenn L. Davasher, Everett S. Davis, Howard E. Engler, Ralph E. Fisher, Mervin E. Gross, Wilfrid H. Hardy, Charles W. Lawrence, Richard E. Nugent, George F. Schulgen, Patrick W. Timberlake, Stewart W. Towle, Jr., Otto P. Weyland, Thomas D. White, Robert W.C. Wimsatt, Hobart R. Yeager, John W. Warren.

First Lieut. Haywood S. Hansell, Jr., Staff and Faculty, Air Corps Tactical School.

From Mitchel Field, N.Y.: Major Charles A. Horn, Capt. Joseph Smith.

From West Point, N.Y.: Captain Leonard H. Rodieck.

From Kelly Field, Texas: Major Clarence E. Crumrine, 61st School Squadron.

From Selfridge Field, Mich.: Major Edwin J. House, 1st Pursuit Group.

From Langley Field, Va.: Major Walter J. Reed.

From Rockwell Air Depot, Calif.: Major Charles W. Sullivan.

From Office Chief of Air Corps, Washington, D.C.: Major Alvan C. Kincaid.

From Maxwell Field, Ala.: Major William W. Welsh, Captain Gordon P. Saville.

From Fort Knox, Ky.: Captain David M. Schlatter, 12th Obs. Squadron.

From Logan Field, Baltimore, Md.: Major Edwin B. Bobzien, Instructor, Air Corps, Maryland National Guard.

From Los Angeles, Calif.: Major Benj. F. Giles, Instructor, Air Corps, California National Guard.

From St. Paul, Minn.: Major Arthur I. Ennis, Instructor, Air Corps, Minnesota National Guard.

From Little Rock, Ark.: Captain Claire Stroh, Instructor, Air Corps, Arkansas National Guard.

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FIRE TESTS ON TYPE PB-2 AIRPLANE

Fire tests on a Type PB-2A airplane were recently completed at the Materiel Division, Wright Field, Dayton, Ohio. As a result of these tests, it was recommended that a 7½-pound CO_2 fire extinguisher be installed in each of these planes. In the event of fire in the air, it was recommended (if conditions permit) that the gasoline be turned off, as well as the ignition, the flying speed reduc-

ed to a minimum, and the extinguisher operated.

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BOMBING PRACTICE BY 9TH BOMB. SQDN.

"We are in the midst of a T.R. 440-40 Bombing Season," writes the News Letter Correspondent of the 9th Bombardment Squadron, Hamilton Field, Calif., "but we have run into the usual difficulties plus many unusual difficulties.

The problem of completing the bombing schedule for this Squadron would be very easy if it were not for the weather conditions we have experienced here for the past month. Having only two full combat crews in this Squadron, it would seem as though it would be a simple matter to complete these crews in the T.R. 440-40 requirements.

However, since we took over the bombing range here, which was about February 10, 1938, there has not been more than four or five days when the ceiling and weather conditions were such as to permit bombing at altitudes of more than 4,000 feet. There is an auxiliary bombing range located at Mather Field which is available at all times, but the weather conditions which prevail at Hamilton Field will normally prevail at Mather Field also.

In addition to the unusual weather, we also have been handicapped within the Squadron due to the fact that the bombardiers of both combat crews are on a special duty detail. One of the bombardiers, Lieut. Underhill, is in charge of Link Trainer instruction, which has taken him away from the Squadron, except for very occasional periods. Lieut. Reynolds, the bombardier of the second combat crew, is taking the course on the Link Trainer, along with Lieut. Capp, which puts both of these officers 'out of commission,' insofar as the Squadron is concerned, for practically all of each morning, five days per week. Lieut. Capp is co-pilot of one crew, and Lieut. Graham, who co-pilots on the Squadron Commander's crew, is taking a special bomb-sight course, which makes him 'not available' for nearly all of every morning or afternoon.

All in all, the situation with reference to the completion of the bombing schedule has the Squadron Operations Section pulling hair by the hands-full. We only have ten officers in the Squadron, including the Squadron Commander, and the two bombardiers and two co-pilots being on these special details just about puts on the finishing touch, so far as bombing schedules are concerned.

If this 'most unusual' California weather continues to prevail, it is possible that we will drop our last bomb at 23:59 on 30 June 38."

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HAWAIIAN AIR DEPOT A BUSY PLACE

Mention of Hawaii brings a person thoughts of tropical sunshine and cool shady spots under the palm trees, unless said person happens to wander through the shops of this Depot. Under the roof of each building is a beehive, but the principal product is not honey, nor any of its by-products. Therein you will find men with calloused hands and sweaty brows, skillfully fashioning various bits of metal into airplane parts. Some of the work requires the use of an eye-glass, and some of it requires the use of a twenty-ton press.

During the first two and a half months of this year, a total of 770 Work Orders were completed at the Hawaiian Air Depot at Luke Field. In addition to the usual routine business handled for Luke and Wheeler Fields, the Depot has taken over the job of fabricating miscellaneous shop and hangar equipment for Hickam Field, and various items required for the assembly of the new B-18's recently assigned.

A few years ago there seemed to be plenty of elbow room around the Depot, but with the recent rapid increase in personnel and airplanes it would now be easier to walk your pet poodle down the center of Fifth Avenue than it would be to do the same thing in the Depot shops.

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WAR DEPARTMENT SPECIAL ORDERS

Changes of Station

To Randolph Field, Texas: 1st Lieut. Edwin R. French, from the Philippines; 1st Lieuts. Gabriel P. Disosway, Othel R. Deering, Harvey P. Huglin; 2nd Lieuts. Ralph M. Kellogg and Jack M. Malone, from Barksdale Field, La.; 1st Lieut. George P. Moody, from Mitchel Field, N.Y.; 1st Lieut. Hanlon H. Van Auken, from Selfridge Field, Mich.; 2nd Lieuts. John B. Cornett, from Brooks Field, Texas; Lawrance O. Brown, from Selfridge Field, Mich.; Daniel I. Moler, from Maxwell Field, Ala.

To Kelly Field, Texas: Captain John D. McAllister, from Maxwell Field, Ala.; 1st Lieuts. John F. Wadman, from March Field, Calif., and LeRoy Hudson, from Brooks Field, Texas.

To Denver, Colo.: 1st Lieut. Raymond J. Reeves, to the Denver Branch of the Air Corps Technical School, from the Philippines.

Active duty for Reserve Officers

Second Lieut. William Preston Nuckols, of Jackson Heights, L.I., New York, to Randolph Field, Texas; and 2nd Lieut. John Jerry Mulvey, of National City, Calif., to March Field, Calif., both to March 17, 1941.

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Major Romeyn B. Hough, Jr., was promoted to the temporary rank of Lieut. Colonel, to rank from March 8, 1938.

NEW TITLES FOR SQUADRONS IN HAWAII

According to the News Letter Correspondent from Luke Field, T.H., the long talked of change in squadron nomenclature became true on February 28th. This change renames the 4th Observation Squadron the 4th Reconnaissance Squadron. "While there is a 'what's in a name' attitude among many," the Luke Field Correspondent continues, "the Squadron feels that our new name is more in keeping with the type of missions we perform and are expected to perform in time of emergency. During the past year our Corps and Army observation work has been practically nil, whereas long range reconnaissance has been emphasized. Every officer in this Squadron, with two exceptions, is either a qualified navigator or a student nearing qualification and, if called upon for any long range reconnaissance, search, or patrol, it is believed that this work would be routine. Therefore, since our work is directed along these lines, we are proud to have our new name, signifying our proficiency in the type of missions expected of us."

The scribe of another organization at Luke Field has this to say:

"The old 65th Service Squadron has blossomed forth with a brand new name. It has been redesignated as 'Base Headquarters and 17th Air Base Squadron.' We, at the present time are at a loss as to just what this is going to mean, or just what changes are going to take place, but as usual we are going to do our utmost to maintain our high morale and efficient standing."

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NAVIGATION TRAINING IN HAWAII

The Navigation School of the 50th Reconnaissance Squadron is still continuing the practical phase in Dead Reckoning navigation. For the past two weeks members of the class have been engaged in plotting navigation problems Nos. 2 and 3. Problem No. 2 consists of flying by the most direct air route from Luke Field to Barbers Point (Oahu), thence to Ninini Point (Kauai), to Kaena Point (Oahu) and to Luke Field. Problem No. 3 is from Luke Field to Kaena Point (Oahu), thence to Kaula Island, to Kahuku Point (Oahu) and to Luke Field.

The students who have completed Problem No. 2 are Captain Homer W. Ferguson, 1st Lieuts. Leland S. Stranathan and George F. Kehoe, Air Corps; 1st Lieut. Edmund T. Gorman, 2nd Lieuts. James C. Cochran and Louis M. Gregory, Air Reserve.

Members of the class who have completed Problem No. 3 are Captain Ferguson, Lieuts. Stranathan and Kehoe.

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Lieut. Colonel Junius W. Jones has been detailed for duty in the Inspector General's Office, Washington, D.C., effective August 1, 1938, from duty at the Denver Branch, A.C. Technical School.

MANY TECHNICAL SCHOOL GRADUATES AMONG "GOOD WILL" FLIGHT PERSONNEL

Stating that the officers and enlisted men of Chanute Field, Rantoul, Ill., rejoice with the rest of the country at the successful flight to South America of our six B-17's, the News Letter Correspondent points with pride to the fact that, of the men who took part in this flight, sixteen are graduates of the Air Corps Technical School, viz:

Captain Alva L. Harvey - Airplane Maintenance Engineering, 1932.

Captain Archibald Y. Smith - Photography, 1928.

Captain Robert B. Williams - Photography, 1925.

1st Lieut. John W. Egan - Armament, 1931.

1st Lieut. Thomas L. Mosley - Airplane Maintenance Engineering, 1931.

1st Lieut. John A. Samford - Airplane Maintenance Engineering, 1935.

1st Lieut. Edwin L. Tucker - Communications, 1936.

Technical Sergeant Besola Cobb - Engine Mechanics, 1924.

Technical Sergeant Gilbert W. Olson - Airplane Mechanics, 1925.

Staff Sergeant William J. Heldt - Airplane Mechanics, 1923; Instrument Specialist, 1937.

Sergeant George R. Charlton - Radio, 1928.

Sergeant Jack A. Franske - Airplane Mechanics, 1930; Carburetor Specialist, 1937.

Corporal James E. Sands - Radio, 1933.

Private 1st Class Norbert D. Flinn - Radio, 1936.

Private 1st Class Donald F. Lowney - Radio, 1936.

Private Harold J. Nycum - Radio, 1936. (1st Cl.)

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PERSONNEL NOTES

Special Orders of the War Department, recently issued, announced the appointment, under the provisions of the Act of Congress, approved June 16, 1936, of Colonel Arnold N. Krogstad, Air Corps, as Wing Commander with the temporary rank of Brigadier General, Air Corps, from March 1, 1938; his relief from assignment and duty as Commandant of the Air Corps Advanced Flying School, Kelly Field, Texas, and his assignment to duty as Wing Commander, Second Wing, GHQ Air Force, Langley Field, Va.

Promotion: From Lieut. Colonel to Colonel - Frederick L. Martin (Brigadier General, Wing Commander) with rank from February 24, 1938.

Lieut. Colonel Arthur B. McDaniel is relieved from duty as Instructor at the Command and General Staff School, Fort Leavenworth, Kans., and assigned to duty as student, Army War College, 38-39 course.

O B I T U A R I E S

Enroute from Maxwell Field, Ala., to Barksdale Field, La., on March 22nd, in a BT-9 airplane, Major Robert H. Finley, Air Corps, met his death when he crashed approximately twelve miles east of Meridian, Miss. The plane was completely wrecked and burned. It was reported that the parachute was found to be open.

The deceased officer entered the military service during the World War and held four flying ratings, those of Airplane Pilot, Airplane Observer, Airship Pilot and Balloon Observer.

Born on November 10, 1892, at Omaha, Nebraska, Major Finley graduated from the elementary and high schools of that city, and in 1915 he graduated as an electrical engineer from the Nebraska State University. Prior to his entry in the service, he was employed for one year as a draughtsman by the Union Pacific Railroad Co., and for a year he was employed by a motor car company in the sales and service department.

Enlisting in the Aviation Section, Signal Enlisted Reserve Corps, on October 9, 1917, he was sent to the Army Balloon School at Fort Omaha, Nebraska, for lighter-than-air training, upon the completion of which he was appointed a second lieutenant in the Aviation Section, Signal Corps, February 11, 1918, and assigned to active duty as an instructor at the above-named Balloon School.

In addition to his balloon training at Fort Omaha, Major Finley completed the course of instruction at the Navy Dirigible School at Pensacola, Fla., in 1919, and the course of instruction at the Army Airship School at Langley Field, Va., during the time he was stationed at this field, from July, 1920, to December, 1921. He next attended the Primary Flying School at Carlstrom Field, Arcadia, Fla., and upon graduation therefrom and completion of the course of instruction at the Advanced Flying School at Kelly Field, Texas, he was assigned as student at the Sheffield Scientific School, Yale University, New Haven, Conn., where he specialized in radio communications, graduating in June, 1923.

Returning to Langley Field, Major Finley served as communications officer of the 2nd Bombardment Group until October 1, 1924. For the next two years he was stationed in the Philippines, serving at Nichols Field for two months and at Kindley Field during the remainder of his foreign service tour. He then returned to Kelly Field, where he served as an instructor in the Observation Section of the Advanced Flying School. Later he took the special course of instruction in Airplane Observation at this school, upon completion of which he was rated as "Airplane Observer."

From December, 1928, to April, 1930, Major Finley was on duty at the Air Corps Technical School at Chanute Field, Ill., following which he was stationed in the Hawaiian Department for a period of three years, being on duty at various times with the 4th Observation Squadron, the 5th Composite Group and the 23rd Bombardment Squadron at Luke Field. His next assignment was at Rockwell Field, Calif., from August, 1933, to October, 1935, where he served for a short time as Post Exchange Officer, and later as Commanding Officer of the 76th Service Squadron; Supply Officer, Station Complement; and Assistant Post Adjutant. From Rockwell Field he was transferred to Moffett Field, Calif., where he remained until August, 1937, when he was transferred to Mitchel Field, N.Y.

The Air Corps deeply regrets the passing of this veteran pilot and extends the utmost sympathy to his bereaved family and friends.

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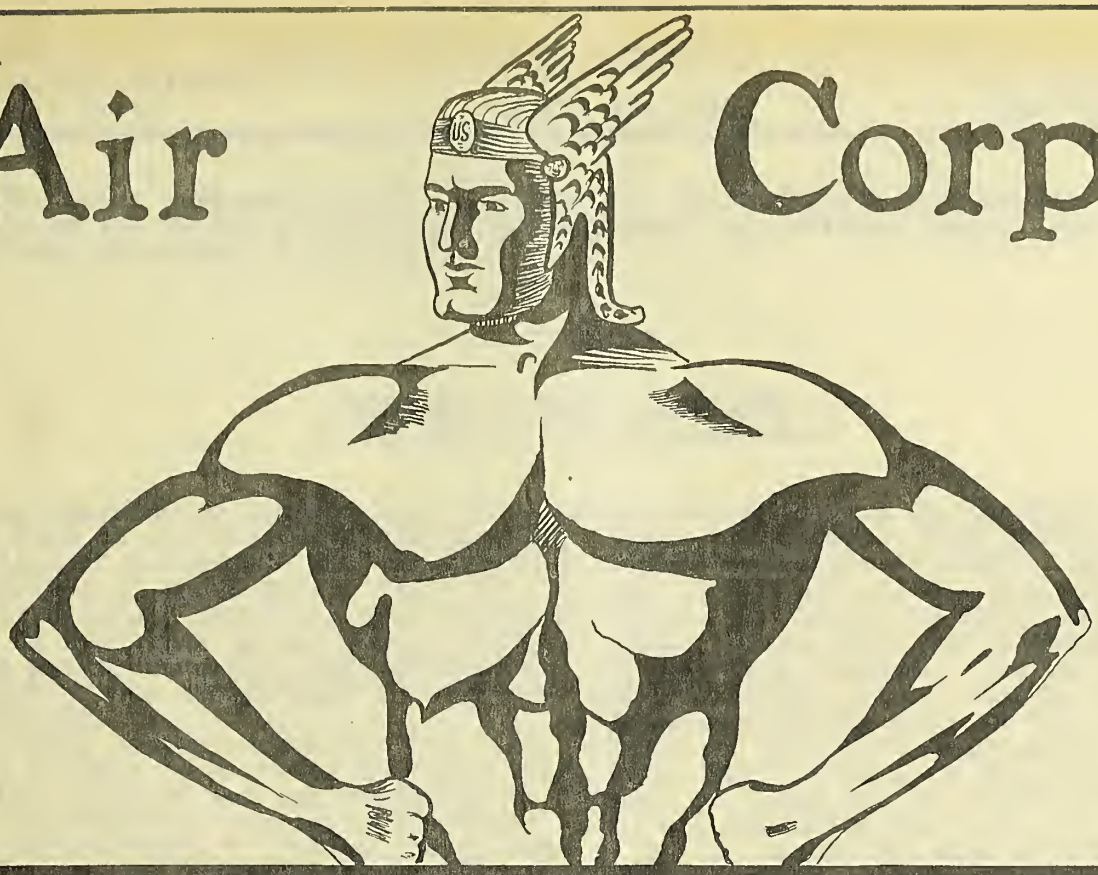
An unfortunate collision in the air on March 18, 1938, some five miles southwest of Clark Field, P.I., resulted in the death of 2nd Lieut. William M. McBee and Private, 1st Class, Harold Nordquest, Air Corps. Neither the pilot nor the passenger used the parachute. The occupants of the other airplane in the accident, 2nd Lieut. Joseph J. Nazzaro, pilot, and Sergeant Wm. M. Nelson, passenger, escaped death by using their parachutes. The pilot was injured during the course of his jump.

Lieut. McBee had been stationed in the Philippines scarcely a month, having arrived in that Department for duty on February 21st. He graduated from the Air Corps Training Center on October 6, 1937, specializing in Pursuit Aviation, and on that date was rated as "Airplane Pilot." He was a member of the June, 1936, graduating class of the U.S. Military Academy, being commissioned a 2nd Lieutenant of Infantry, following which he was assigned to the Air Corps for flying training. He was born in Arkansas, January 12, 1911.

Private Nordquest was serving his first enlistment in the Air Corps, which he joined on September 23, 1935, being assigned to station at Chanute Field, Rantoul, Ill. He graduated in May, 1936, from the Air Corps Technical School at that station as a Radio Operator, following which he was assigned to duty in the Philippines with station at Nichols Field, P.I. He was promoted to Private, 1st Class, November 30, 1937.

The Air Corps extends its deepest sympathy to the sorrowing relatives and friends of these two young men whose untimely death cut short promising careers in the military service.

Air Corps



NEWS★LETTER

ISSUED BY
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OF
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WAR DEPARTMENT
WASHINGTON, D.C.

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F. J. LORENZ

VOL. XXI AIR CORPS NEWS LETTER NO. 8.

Information Division, Air Corps — April 15, 1938 — Munitions Building, Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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THE ARMY SERVES A COMMUNITY

By the Scott Field Correspondent

Never again do we hope to have an emergency such as confronted the civil authorities of Belleville and the military authorities of Scott Field, Ill., on Tuesday evening, March 15, 1938. However, if we do find such an emergency arising, we are pretty sure from the recent performance of our troops that we will meet it properly.

The whole country knows by this time that a tornado is of brief duration, but terrific velocity and destructiveness took less than one minute to lay waste about eight blocks of Belleville on West Main Street and adjoining streets in the vicinity of the Belleville Township High School. Narrowly missing that structure, the tornado destroyed an industrial plant adjoining, a grade school, a tavern, several filling stations, stores and some eighty residences. The storm also uprooted trees, blew down light poles and high tension wires, upset railroad box cars, automobiles and other articles too numerous to mention, as an auctioneer would say. In short, everything in the path of the twister was strewn far and wide.

In such a calamity of nature it is miraculous that there were not more deaths and injuries sustained, but the eight immediate deaths and the more than twenty fairly serious injuries at once strained the facilities of the Belleville hospitals.

Less serious, but important to the work of rescue, was the necessity of maintaining order and coordinating the task of rescue workers. Who was better fitted for the task than the Regular Army troops stationed at nearby Scott Field?

Consequently, at about 5:15 p.m., a hurried call for immediate help was received by the Commanding Officer of Scott Field from the Chief of Police of Belleville. The Scott Field Commander replied that he would send in immediately one hundred to one hundred and twenty men.

All men on the post were at once ordered to quarters and all motor transportation was lined up outside the garage ready to go. Many of the soldiers were already gathering at the Post Theater, where the picture "Good Earth" was attracting a capacity house. The theater was closed and all men ordered to get aboard the trucks at once. As the alarm spread there was a general exodus of men from barracks, theater, quarters, post exchange, etc., just as they were, some in uniform, some in fatigue clothes, some with overcoats, some without. They piled into the trucks and were on their way to Belleville within 25 minutes after the call came.

As the convoy of some 15 trucks passed through the center of Belleville, they ran into one of the worst traffic jams imaginable. It seemed that everybody in Belleville was trying to get to the scene at once. The soldiers had to literally fight the way in for the last mile to get to the edge of the stricken area.

Arriving at the scene of destruction, the soldiers were quickly marched to the center of the area. After a hurried survey of the situation was made, the soldiers dispersed to the outer edges of the area to work the crowd back and keep others from coming in.

About an hour after the arrival in the area, a command post was established in the office of an industrial plant on the eastern edge of the area. This plant was entirely destroyed except for the front office. The Bell Telephone Company put in a line and telephone for communication purposes with the outside. Prior to this, the only communication available was the police two-way radio from the patrol car of the Chief of Police.

As soon as telephone communication was established, the field was contacted and told to send no more men into the area, but to hold them in readiness as reinforcements, or to be used as replacements in the morning. As darkness was coming on, all flashlights in the Signal Corps stock were requested to be sent in along with riot sticks and coffee and sandwiches.

Shortly after dark the sky began to clear, and a brilliant moon with gorgeous cloud formations cast an eerie glow

over the entire scene. Later, as the clouds drifted away, the clear moonlight made the work easier, and sad work it was. A check of survivors was almost impossible, except where a family was working around its ruined home and could assure the searchers that they were all present and accounted for. All too often, this was impossible. Guarding to prevent looting and to clear the district of the curious who would have poured in to hamper rescue work was tedious, and later in the night also became chilling. Some soldiers had more grim duty in extracting from the wreckage the body of a man pinned into the earth by a two-by-four.

When it became apparent that troops would be needed for several days to guard the area, and as the emergency would be over the next day, the Commanding Officer of Scott Field in charge of the Regular Army troops, advised Mayor George Remsneider, of Belleville, that he should call on the Governor of Illinois for National Guard troops to relieve the Regulars as soon as possible. A call was made to Governor Henry Horner, who promised National Guard troops by 4:00 p.m. the next day.

The first force of guards was relieved at seven o'clock the next morning by the men of the 15th Observation Squadron, better and more deliberately equipped and clothed. They remained on guard throughout the day, while the weary force of the night before tumbled into their beds for some much needed sleep. The 15th Squadron men were relieved at 5:00 p.m. by the Illinois National Guard troops dispatched by Governor Horner.

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THE PROGRESS OF AVIATION

The monthly aeronautical magazine AVIATION, for April, published a most interesting series of charts as tending to show that, in the words of the editor of this magazine in his open letter preceding this series of charts, "Aviation has passed the experimental stage. It is no longer a mere toy for the scientist, or simply a source of vicarious thrills for the man on the street. Aviation has come of age. It has become an integral part of our national life, weaving strong threads into the web of our national commerce and tough fibers into the warp of our national defense. Quite literally, this country's aviation has become everybody's business."

Among the facts regarding the aeronautical industry, as brought out by means of the charts above referred to, are the following:

Last year, 30,000 flying students, the owners of 6,000 private planes, 1,325,000 taxi or hop customers, the writers of 300,000,000 letters, the purchasers of 1,268,000 tickets and the shippers of 628,000 parcels, together with the rest of the 129,257,000 taxpayers of the United States, paid out $304,600,000 for aviation activities, these figures being broken down as follows:

Non-scheduled flying, utilizing 7,000 employees, $13,300,000.

Air transport, utilizing 17,546 employees, $37,200,000.

Army Air Corps (20,707 officers and men) $106,000,000.

Naval air forces (20,671 officers and men) $97,000,000.

Coast Guard aviation (391 officers and men) $1,400,000.

Basic research, utilizing 416 technicians, $2,100,000.

Radio, Weather, Regulations, etc., employing 3,400, $12,600,000.

Airport construction through WPA projects, employing 30,000 workers, $35,000,000.

Part of this outlay of $304,600,000 in turn supported such essential industries as -

Engine production, worth $51,900,000.

Accessories amounting to $19,500,000.

Total output of aeronautical factories, reaching $114,990,000.

Raw materials costing more than $20,000,000.

Fuel and oil amounting to $11,400,000.

Number of employees - 36,000.

From the employment standpoint alone, it will be noted that the aeronautical industry of the United States afforded gainful occupations to a total of approximately 136,131 persons, including military, naval, and Coast Guard personnel.

The rest of the world bought $39,400,000 worth of U.S. aircraft products.

Here are other pertinent figures denoting the progress of aviation in the United States:

By air travel the United States in the year 1927 was 35 hours wide, as against the reduced time of 26 hours and 54 minutes in 1932 and 15 hours and 10 minutes in 1937. By rail the United States is still 67:02 hours wide.

Round trips by air from Chicago to New York amounted to six per day in 1932 as compared with 23 daily in 1937.

There were 10 fatal accidents in airline operations from April 1, 1936, to April 1, 1937, as against five from April 1, 1937, to April 1, 1938.

In economy of air travel, the fare per mile was reduced from 11¢ in 1928 to 6.2¢ in 1932 and 5.4¢ in 1937.

In 1932, commercial airlines carried 474,279 passengers, 3,697 tons of mail and 517 tons of express, as against 1,102,707 passengers, 11,000 tons of mail and 3,564 tons of express carried in 1937.

As indicative of the fact that airmail "subsidy" is vanishing, the figures show that in 1932 the United States paid air mail contractors the sum of $19,938,000 as against $12,891,000 in 1937, while

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LOSS OF SMALL PIN CAUSES FORCED LANDING

By 1st Lieut. John H. Fite, Air Corps

Ed. Note: The oft repeated expression about the little things that count is fully substantiated in the story which follows - a story which it would not have been necessary to write but for the loss of a small tapered pin which rendered inoperative the switch connecting the gasoline tanks on a B-12 Bombing plane.

"To jump, or not to jump, that is the question." This momentous decision was forced upon me on the morning of February 25, 1938, one hour and twenty minutes after I had departed from Biggs Field, El Paso, Texas, toward March Field, Riverside, California. My clearance read from Biggs Field to March Field, direct; however, I was going to land at Tucson for gasoline if I deemed it necessary.

Flying a B-12A airplane with three passengers, I departed at approximately ten o'clock from Biggs Field. There being two main tanks with visual fuel gauges and two auxiliary tanks without fuel gauges in the B-12, I decided to use my right main tank for the first period in order to be able to calculate my fuel consumption-air speed ratio. Climbing to 8,000 feet, I flew a compass course for Apache Pass. Going through the Pass, I approached the southern end of Dry Lake, thence directly toward Tucson, passing slightly to the left of the peak of the Rincon Mountain.

At this period my right main tank fuel indicator read ten gallons. Based upon the passage of time, the fuel consumption, and the distance I had made during this time, I determined that I would have sufficient gas to reach March Field without landing at Tucson. At this point Tucson was approximately twenty miles directly ahead of me which, of course, was west. At this point I switched from my right main to the left auxiliary gas tank. Fuel pressure and the R.P.M.'s indicated to me that the left auxiliary tank was being used. At this point I picked up the "mike" and called Tucson, in order to get the winds aloft report between Tucson and March Field.

While talking to the Tucson radio operator, I glanced over the "mike" toward the right fuel indicator. To my astonishment the right fuel indicator showed a reading of five gallons instead of the previous ten. I switched from the auxiliary tank to the left main tank, hoping that only the auxiliary system was out and not the main system. I kept radio contact with Tucson. However, with the fuel control valve on the left main tank, my right fuel indicator continued to show that gas was being used from the right main tank. By this time I had passed the Rincon Mountain peak and was approximately within fifteen miles of Tucson. Directly below me the terrain was exceedingly rough and no visible emergency landing area was available. The ground was covered either by boulders, cacti or mesquite. I continued to contact the Tucson Airport and informed the radio operator of my exact position and altitude, and that a forced landing was inevitable unless I decided to abandon the ship. The situation, of course, was serious.

There wasn't much consolation to be had, during my conversation with the radio operator, from his statement that "It certainly looks bad."

Unconsciously I replied: "Gee, are you telling me?"

Burbank, Calif., along with several other stations were listening in.

By this time the warning light on the fuel system was blinking and the fuel pressure gauges were approaching zero. While still looking for a landing field, my subconscious mind referred to three alternatives: first, to abandon the ship; second, to attempt to land; third, if I attempted to land, should I leave the wheels up or lower them? To abandon the ship meant getting word to the three passengers, and I did not have interphone connections in this airplane. One man was in the nose, another in the bomb bay, while the third rode in the observer's seat.

I do not believe I would have had enough time to get all three men out of the ship by visual signals. At this point the motors started to splutter, and the man in the nose looked to me for instructions - whether to bail out or not. I shook my head. A very small clearing showed up on my right and I decided to land the airplane.

My motors were now dead. I was definitely losing altitude and had started spiraling down. Still looking for some other place to land than the small patch of ground which had possibilities, I lowered my landing gear. This decision was based upon the fact that the cacti and mesquite were not extremely high and that there were a few rocks and boulders in this vicinity. Consequently, with my wheels down I believed that if I missed the rocks I would clear most of the cacti and mesquite. If I hit a rock while landing on the belly of the ship I feared for the man in the nose and the bomb-bay. At this point I was approximately 2500 feet above the terrain.

I had maintained radio conversation with the Tucson Airport, gave them my decision, where I expected to land, and likewise asked them to stand by for an emergency run to aid me in case of disaster. I then switched off the radio and gave my full attention to the land-

ing of the airplane. On approaching this small clearing, which was on the right and parallel to the Rincon Dry Wash, I saw that I definitely had to land in the small clearing, because to land short would have spelled disaster. Making a long S approach, I trimmed the ship and started to glide toward the field a little above the normal gliding angle. Another incident I encountered was the fact that the propeller continued to turn and had a tendency to increase my speed considerably. Not having wing flaps, I had no possible way of holding the nose of the ship to slow down the airplane, and a B-12 cannot be brought up toward the stall at this altitude without encountering danger.

I saw that I would easily hit the field, but that it would not be long enough to stop the airplane within its boundaries. I must admit that, as a rule, a small field from a considerable height increases in size as you approach it. I am afraid in this case that the field shrank as I approached it. As my wheels touched the ground there appeared in a small patch of mesquite and cacti at the farther end of the field a tractor partially hidden by the aforementioned. I quickly applied the brakes to the fullest extent, but I realized that I could not stop before running into this mesquite. The tractor forced me to swerve sharply to the right, and I made contact with the small trees and cacti. The wheels being down, only the tops of these small trees were hit, and we quickly passed through them, coming out on the other side with a limb sticking in each wing. Having veered to the right, the plane came to rest at right angles to my approach. The four of us quickly abandoned the plane with the one idea in mind - FIRE. Fortunately, there was none.

Upon inspecting the airplane, we found there was slight damage to the two wings, but the tail surface had received considerable damage on the left side, caused by its catching on a small tree as I veered to the right. The left tire, as well as the tail wheel, had been blown. My passenger in the nose of the plane had turned his back upon the approach to the mesquite, and while the glass was shattered no injury was sustained by him.

A few minutes afterward there came circling over this area one of the American Air Line giant flag ships which had been approaching Tucson and was ordered out by radio to the location I had given. They came low enough to give an accurate account of my position and approximately the extent of the damage to the airplane. They reported that no injuries had been incurred by the personnel. This courtesy was, of course, greatly appreciated by me, and it lifted the tension which had been created by my radio conversation with the Tucson Airport.

A young Mexican in his dilapidated car ferried me to the Airport, where telegraphic reports were sent out concerning the accident.

Upon my return to the scene of the accident, a close inspection revealed that a small tapered pin connecting the four-way valve handle to the gas tanks had fallen out and that it was impossible to switch from the one tank I had been on to any of the other three gasoline tanks.

Of course, since the forced landing was successful, I was glad that we had not abandoned the ship. Whether it would have been more feasible to make a belly landing can only be answered by the fact that a successful wheel landing was made and no great damage was done to the airplane, nor were any injuries sustained by the personnel.

The forced landing occurred in very rough and rugged country, and it happened with such little advance warning that we really did not have time to take much premediated action. The three passengers realized the predicament I was in, but they did not have any desire to abandon the plane unless I gave them orders, which to me was quite commendable. It showed that they had faith in the pilot of the airplane.

We were picked up on the following morning by a B-18 from March Field, and we continued the trip to that field.

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The Progress of Aviation

(Continued from Page 2)

air mail writers paid the United States $6,000,000 in 1932, and more than twice that sum ($12,450,000) in 1937.

Looking into the future - in 1943, five years from now, AVIATION envisions the fare on commercial airlines at ¾¢ per mile; passengers carried per year, 6,000,000; all first class mail transported by air without surcharge; total domestic route miles, 60,000; total foreign route miles, 100,000; speed on trunk line routes, between 250 and 300 miles per hour; altitude of travel, 25,000 feet; passengers carried per plane, from 40 to 80, and from 3 to 6 airmen; mile square terminals, double runways; complete automatic blind landing and positive traffic control.

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Effective upon the completion of their present course of instruction at the Command and General Staff School, Fort Leavenworth, Kansas, Major Frederick M. Hopkins, Jr., and Captain Earl W.Barnes, Air Corps, are assigned to duty at Maxwell Field, Ala., and Major Clements McMullen, Air Corps, is assigned to duty at the San Antonio Air Depot, Duncan Field, San Antonio, Texas.

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MARCH FIELD PERSONNEL RESCUE FLOOD VICTIMS
By the News Letter Correspondent

While large areas in Southern California were being choked up and devastated, and people, automobiles and even houses were being swept away by raging flood waters, the result of a record three-day rainfall, March Field, Riverside, Calif., unharmed in the midst of chaos that cut off whole cities from the outside world, marshalled its forces, rescued persons whose lives were endangered by swirling waters, and joined the Red Cross in aiding flood victims.

On March 2nd, with the first knowledge of the worst flood disaster in Southern California history, Colonel John H.Pirie, Commanding Officer of March Field, acquainted with conditions in Riverside, ten miles away, ordered Quartermaster trucks and soldiers to the scene to assist in rescue work.

Under the direction of Brigadier General Delos C. Emmons, 1st Wing Commander, the 38th Reconnaissance Squadron took to the air to photograph inundated areas eastward to Indio, and along all swollen rivers and washes from mountains to the sea. Airplanes of the 17th Attack Group constantly flew over flooded sections, the Army airmen directing and facilitating rescue work by means of radio communication. Airplanes waited, ever ready, on the hangar lines to be sent off on any mission which might arise. March Field flyers dropped food and gave news of outside conditions to marooned communities and towns. With short wave radio, the only means of communication, March Field's WYM kept constant contact with Los Angeles, San Bernardino and outside points, acting as a news agency in the dissemination of actual and unexaggerated reports of conditions and assisting in the direction of outside help.

A radio transmitter and receiver were transported by air to Alhambra to increase communication facilities. Food supplies for March Field were flown in by air because there were no trains to or through Riverside for ten days and all highways were either closed or extremely dangerous to traffic.

March Field officers cooperated with and kept in constant touch with the State Highway and Forestry Departments. They assisted the Highway Department to a considerable extent by locating and reporting bridges that were washed away and reporting other washouts.

When the rumbling, invincible forward rush of the water had met the sea, leaving in its wake debris and silt and destruction that concealed victims, March Field went to work to aid stricken civilians.

From municipal, county, state forestry, state highway and railway officials, pleas for mosaic photographs of devastated areas poured into the office of the March Field Commander. Under the command of Major Paul H. Prentiss, the 38th Reconnaissance Squadron made over 500 photographs. Prints, rushed out by the March Field Photo Section, were delivered with efficiency and dispatch to the U.S. Engineers and to county authorities of Los Angeles, San Bernardino and Riverside.

During the period March 3rd to 5th, the 17th Attack Group, under the command of Lieut. Colonel Carlyle H. Wash, conducted 37 missions, involving a total time of 51 hours and 40 minutes. Of these missions, 14 were flown for the purpose of locating marooned people; four to locate washed-out roads; eight to locate destroyed bridges; six to check the condition of dams; two to check broken power lines; two to drop food to marooned people - in which Lieuts. Hatcher and Rendle flew 600 pounds of food to marooned people in the vicinity of Camp Baldy where flood damage was especially heavy - and one liaison mission to Los Angeles.

On the night of March 2nd, Quartermaster trucks and a detachment of enlisted men under the command of Major John B. Casseday, Quartermaster Corps, proceeded to West Riverside, where the turbulent waters of the Santa Ana River, rushing out of its regular course over highways and through residential districts, threatened the lives of scores of helpless people. Here the soldiers heroically braved the four-foot wall of swiftly moving, debris-laden water and, by means of strong tow lines and the skillful maneuvering of an Army truck, a Riverside fire truck with several people aboard was pulled out of the flood when it was in imminent danger of being swept away. Several people in this area, unable to reach safe ground before being caught by the rising waters, were drowned.

As the flood waters receded and the long weary task of reconstruction was begun, letters of thanks and appreciation arrived at March Field. One lady wrote:

"Would you kindly give us the names of the boys who were on your Army truck Wednesday night, March 2nd, doing rescue work at the Santa Ana River flood? My husband, young son and I were saved by those boys when they were able to get us out of the county truck.

"We were on the fire truck for several hours and as it was about to go we were transferred to the county truck and were there until your truck appeared. In all, we were in danger from 5:30 until nearly 11 PM. Our car is in the river. We feel those boys of yours saved those brave firemen as well as we three. And a number of others later.

"We would like to thank each one personally, but if you do not care to giv

out their names, won't you please give them our very deepest thanks. Words are so useless when one's life has been saved, but I think they will understand how we appreciate their help. God bless them all.

"You have no idea - or maybe you have - of how precise and quickly they worked. Not a false move or useless gesture which would have meant time wasted.

"I deeply regret that we are not in a position to reward them by more than our thanks. If you are willing to send us their names we will be eternally grateful - otherwise, please thank them for their life-time friends.

Mrs. Hazel E. Smith & family."

From the County of Riverside, the Board of Supervisors, the Sheriff, the American Red Cross, the California Highway Patrol, etc., came other letters, warm and sincere and grateful. Mr. E. Raymond Cato, Chief of the California Highway Patrol, wrote:

"On behalf of the California Highway Patrol, I wish to take this opportunity of thanking you, your officers and men, for the invaluable services which you so willingly rendered the California Highway Patrol during and following the recent devastating flood.

"At a time when a number of human lives were imperiled on Mission Boulevard near Riverside, entrapped by the sudden overflow of the Santa Ana River, atop automobiles, holding to trees after their vehicles had been washed away, and after every attempt at rescue had failed and all were seemingly lost because of the lack of adequate facilities, you unhesitatingly dispatched the necessary facilities to the scene at my request.

"I wish to call particular attention to and commend Major J.B. Casseday and the detachment of soldiers who so valiantly rescued the stranded victims. In the face of imminent danger with the raging water still rising, Major Casseday and the detachment of men of your command braved their way through in an Army truck where other rescue trucks and a tractor had foundered.

"I wish also to commend the pilots who, during the danger period, persistently and untiringly kept a continuous aerial watch of Big Bear Lake and gave our office hourly reports in order that we might have warning and evacuate the endangered area in the event of a break which was feared in the dam. The pilots who were dispatched to fly over and furnish our office with the requested reports on various highways and bridges are deserving of much credit for the promptness and accuracy of their detailed reports. These reports were so precise that they not only served us in selecting best traffic routes, but are now of great value to governmental engineers in making preliminary survey of the damages done.

"And then, of inestimable importance, was the assistance of your radio communications department whose services you voluntarily placed at our disposal. Our communications were handled promptly and accurately.

"With such efficient officers and men, there is little wonder that the quality of our Air Service is far above that of any other country. Our people are justly proud of their Air Service.

"As a representative of the California Highway Patrol, I am deeply grateful for your assistance. The State of California owes a debt of gratitude to you and your command for an invaluable service rendered her people at a time of dire need.

(Signed) E. RAYMOND CATO,
Chief, Calif. Highway Patrol."

In Special Orders, dated March 10, 1938, by command of Colonel John H.Pirie, a board of officers, composed of Majors Early E.W. Duncan, Lucas V. Beau, Jr., and Second Lieut. Boyd Hubbard, Jr., was appointed to meet without delay for the purpose of receiving, considering and preparing for submission to higher authorities, recommendations for the award of the Soldier's Medal to certain enlisted men of this station for heroism displayed in flood rescue work.

On Thursday, March 24th, the board convened and heard testimony on the operations of members of this command in connection with the flood. The findings of this board have not as yet been published.

All in all, the efficient and wholehearted response of March Field demonstrates the usefulness to which a defense unit may be put in the event of peacetime disasters. The flood is over now, but the ever strengthening bond of friendship between March Field and civilians is even closer in the hearts and minds of many grateful citizens.

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ASSIGNMENT OF ARMY WAR COLLEGE GRADUATES

The following-named Air Corps officers, now on duty as students at the Army War College, Fort Humphreys, D.C., are assigned to duty as indicated, effective upon completion of their present course of instruction, viz:

Lieut. Colonel Hubert R. Harmon and Major Idwal H. Edwards to the War Department General Staff, Washington, D.C.

Colonel Henry W. Harms, Majors Warren R. Carter and Austin W. Martenstein to Office Chief of the Air Corps, Washington.

Majors Alfred J. Lyon to Wright Field, O. and John Y. York, Jr., to Maxwell Field, Ala.

Major Harry A. Johnson to Chanute Field, Rantoul, Ill.

Major John DeF. Barker to Ft. L'worth as instructor at C. & G.S. School.

SUPPLYING CAVALRY NEEDS BY AIRPLANE

The Honorable Harry H. Woodring, Secretary of War, recently announced that the Army will initiate unique but important tests when the Army Air Corps undertakes to provide all food, rations and forage for a platoon of Cavalry in mountainous terrain in the field, beginning April 14th.

The tests are being conducted in the Big Bend District of Texas, in the vicinity of Balmorhea. The 1st Platoon, Troop "A," 8th Cavalry, consisting of 30 men and horses for the unit, will obtain all its food for personnel and grain and hay for animals, from containers to be let down from a B-10 Bomber by parachutes.

The rations which will be delivered to personnel will be the normal garrison of 5½ lbs. per man; the ration for horses will consist of 12 lbs. of oats and 14 lbs. of hay each. There will be a daily delivery of approximately 1,000 lbs. to the Cavalry platoon in mountainous terrain where it would be impossible for the airplane to land, all of which will be let down by parachutes from the Army Bomber.

The tests will be conducted for a period of four days, ending on April 18th, and will be under the supervision of Brig. General Ben Lear, Commanding the 1st Cavalry Division, Fort Bliss, Texas, and immediately conducted by Major Guy Kirksey, Air Corps, who has been designated Division Air Officer, 1st Cavalry Division, for the period of the tests.

The delivery of food to personnel in isolated areas, employing parachutes thrown from Army planes is not new. Several years ago, a large number of Indians were fed for a considerable period in the high plateaus of Arizona, when they were cut off from all outside sources by deep snow. Food and medicine have also been delivered to flood victims on several occasions in recent years. The tests which the Army Air Corps and Cavalry will initiate in Southwest Texas are more extensive, however, since they involve not only the feeding of personnel but feeding of animals as well, to include delivery of bales of hay and sacks of grain.

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A board convened at Wright Field, Ohio, on March 19th, for the purpose of evaluating two-engine transport-personnel airplanes as to utility of type. The officers composing the board were Majors W.T. Larson, of Langley Field, Va.; R.T. Cronau, of Randolph Fiels, Texas; S.M. Umstead of Wright Field; Captains L.C. Craigie, of Wright Field; Luther S. Smith, of the Office of the Chief of the Air Corps, Washington, D.C., and Lieut. E.R. Todd, of Kelly Field.

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RADIO BROADCAST FROM XB-15 and XC-35

A radio broadcast, which reflected great credit both on the U.S. Army and the N.B.C. representatives who took part in its arrangement, was held on Sunday, April 3rd, in honor of my Day. As presented, it was an entertainment in which any organization might well have been proud to have a part.

Among the broadcasts were one from the XB-15 airplane flying over New York City, with Major General Oscar Westover at the microphone, and another from the Air Corps substratosphere airplane, flying at 33,000 feet over New York City, with Major Carl F. Greene, Air Corps, at the microphone. The latter flight happened to be a record one for altitude for the substratosphere airplane which, of course, is not built to accomplish altitude records but to serve as an experimental laboratory for the study of practicable and comfortable flights between 20,000 and 40,000 feet.

Both airplanes took off from Wright Field, Ohio, on Saturday, April 2nd. In the B-15 were Major S.M. Umstead and Lieut. L.F. Harman at the controls, and as crew, Lieut. Colonel H.V. Hopkins, Captain C.S. Irvine, Lieut. E.H. Beebe, Messrs. Mark Koogler, P.H. Henderson, B. Casebeer, H.W. Johnson, John Honacker and William Fell, the latter an Eclipse Aviation Corporation representative. The XC-35 was manned by Captains A.H. Johnson and G.J. Eppright at the controls, and Major Carl F. Greene and Mr. G.W. Laub. The voices from the two airplanes came clearly and resonantly above the roar of the motors. The Aircraft Radio Laboratory at Wright Field was responsible for the hookups of the airplanes.

The final item of the program, a roll call by General Malin Craig, Chief of Staff, in Washington, of the various units which had taken part in the broadcast, was a triumphant demonstration of the possibilities of modern radio.

The timing of responses coming from various parts of the United States, including the air high above New York City, to the voice of the Army Chief in Washington, was a feature which those who heard it will not soon forget.

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An airplane accident on April 3rd near Ashtabula, Ohio, resulted in the death of 2nd Lieut. Kelvine Burke, Air Reserve, who had been stationed at Selfridge Field, Mich., since May 15, 1937.

Lieut. Burke was born on July 15, 1911, at Buffalo, N.Y., and he received his education at Buffalo and Manhattan College. He graduated from the Air Corps Training Center in 1936, and was assigned to active duty at Mitchel Field, N.Y. He is survived by his mother, four brothers and four sisters, to whom the Air Corps extends its deep sympathy. His father, a prominent Buffalo Surgeon, is deceased.

A THEATER FOR HAMILTON FIELD

At last Hamilton Field is to have a theater - and a beautifully constructed and decorated building it is. Situated on the hillside near the entrance to the post, its design corresponds to the other buildings of white stucco with the typical red tile roof. The interior also reflects the Spanish influence, with copper trim and red seats, modern indirect lighting completing the decoration.

The theater was to be officially dedicated on the evening of April 7th by Colonel Horace F. Sykes, Adjutant General of the Ninth Corps Area, and Lieut. Col. C.W. Russell, Commanding Officer of Hamilton Field, while two shows were to be held that evening to accommodate the expected large attendance.

The building is small and compact, seating but 422. The stage is constructed for either moving pictures or stage shows, and air conditioning adds to the comfort of patrons.

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CHANGE OF COMMANDERS AT KELLY FIELD

Brigadier General Arnold N. Krogstad, Commanding Officer of Kelly Field, Texas, up to March 25th, departed on that day for his new assignment and duties as Wing Commander of the Second Wing, GHQ Air Force, Langley Field, Va. Colonel Frank D. Lackland, Commandant of the Air Corps Advanced Flying School, assumed the duties of Commanding Officer of Kelly Field on March 25th.

General Krogstad arrived at Langley Field on the morning of March 31st to assume command of the Second Wing, GHQ Air Force, succeeding Brigadier General Gerald C. Brant, who left sometime ago for Chanute Field, Rantoul, Ill.

General Krogstad was greeted at the Langley Field base by several fellow officers in front of the Second Wing Headquarters Building, among whom were Major General Frank M. Andrews, Commanding General of the GHQ Air Force, and Colonel Walter R. Weaver, commander of Langley Field. Traveling to his new station by automobile, General Krogstad arrived at the airdrome about the same time several planes of the Second Wing were returning from central Florida, where annual spring maneuvers had been under way for several weeks.

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SAN ANTONIO DEPOT BUSY TRANSPORTING MEN

The San Antonio Air Depot, Duncan Field, Texas, was recently called on for a rush order of C-33 transport flights when it became necessary to transfer some 150 enlisted men from Langley Field, Va., to the Air Corps Training Center, Randolph Field, Texas. From March 20th to April 3rd, all pilots, officer and enlisted, and crews, with the four C-33's at the Depot and one borrowed from the Fairfield Air Depot, were kept busy flying between Randolph and Langley Fields. A flight was also made to Maxwell Field, Ala., for transporting enlisted men to Randolph Field.

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COMMENDATION FOR ALBROOK FIELD PERSONNEL

Expressing the appreciation of the 4th Coast Artillery (AA) for the fine cooperation extended to it by Air Corps personnel during its training season, the Commanding Officer of this organization, Colonel Forrest E. Williford, in a recent letter to the Commanding General of the 19th Wing, Air Corps, Albrook Field, Canal Zone, stated:

"For the first time in several years the Harbor Defenses of Balboa and Antiaircraft Defenses of the Pacific Sector have completed all scheduled firing during the calendar year without a carry over. This has been accomplished in a large measure through the splendid cooperation of the Air Corps personnel at Albrook Field in furnishing the necessary air missions."

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MULTI-ENGINE CONTROL DEVICES

The Materiel Division, Wright Field, Ohio, has two experimental devices under development for the automatic control of engines with special reference to four-engine airplanes. The idea back of these developments is to relieve the pilot or engineer of the necessity of constant attention to the engine controls. The simpler of the two devices is known as the automatic engine synchronizer. Its function is automatically to maintain a constant r.p.m. on all four engines by propeller pitch control. The r.p.m. at which automatic control can be maintained is manually variable over a wide range. The other engine control device is known as the automatic engineer. Its function is to control r.p.m. as above, also automatically to maintain a constant manifold pressure on all four engines by throttle control. A wide range of operating manifold pressures can be maintained automatically. One each of these devices is being procured for test at the Division.

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At the Materiel Division, Wright Field, Ohio, circular proposals were issued in March (opening date March 8, 1939, at 1:00 p.m.) for single-engine Attack airplanes. The bids are to be based upon quantities of from one to five hundred in increments of ten.

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LINK TRAINER INSTRUCTION AT HAMILTON FIELD
By the News Letter Correspondent

Almost any day between the hours of eight and four, a strange humming sound can be heard coming from the northwest room of hangar 4. Upon entering, one finds a somewhat distressed pilot jousting with the instruments and controls of the familiar Link Trainer. This has been going on since the installation of the Trainer around the first of the year. During this time, some fifteen pilots have received training in it.

The fifteen-hour course presented consists mainly of familiarization with the Trainer, accuracy work in instrument flying, and radio beam orientation. Included in the accuracy work are time turns, reversals on approach legs with Department of Commerce let downs through overcasts.

Several acceptable methods of radio beam orientation are presented with the purpose in view of furnishing the pilot with some choice to fit the conditions of operations in the locality of the beam used. Beams from all parts of the United States are selected for training, but particular stress is laid on the beams in the locality of Hamilton Field. In addition to the above, training is given in the use of the radio compass and in instrument landings. Toward the end of the course, a cross-country flight in the Trainer is given between two distant radio beam stations, and during this jaunt all possible conditions, such as ice, bumpy air, mountains, bent beams, split beams, false cones of silence, and other conditions are similated effectively. This radio cross-country is intended to help improve the judgment of the pilot while flying under bad weather conditions.

So far the results of the training are quite gratifying. Upon the completion of the course, students seem to have a clearer, more tangible picture in their minds of the beam lay-out of the particular station to which they are tuned, and upon hearing the quadrant signals make a plan to orient themselves and follow the beam into the cone of silence quickly and efficiently. All movements are done smoothly with timing and precision. Errors are few, and a pilot lost is a rare occurrence.

Although the results have been pleasing, there has been no opportunity this early to compare the average pilot's improvement, before and after using the Trainer course, relative to actual instrument work in the air.

The conclusions which may be drawn from the training to date are that the Link Trainer cannot and should not be expected to take the place of any of the actual work in the air, but it can supplement instrument training in the air to a great extent. The results in black and white of problems worked on the Trainer are shown to scale on the beam chart by the recorder. This gives the student an opportunity to see his mistakes and profit by the corrections offered by his instructor.

Briefly, the Link Trainer offers a relatively economical, safe, and efficient way for pilots to learn instrument flying.

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NO WORRY ABOUT MOTOR FUEL SUPPLY

Often there have appeared in print predictions to the effect that, at the present rate of consumption of gasoline and oil, there is likely to be a serious motor fuel shortage in this country in the not too distant future.

According to Dr. Gustav Egloff, Director of Research for the Universal Oil Products Co., of Chicago, there is plenty of fuel ahead, based on present known motor-fuel sources. In fact, ahead lies a fuel reserve period of nothing less than 20 years based on natural petroleum deposits now in sight, and what's more, estimating fuel supply from all natural and synthetic sources capable of utilization through the most advanced processes now in use and likely to follow, there looms ahead a supply good for just a mere span of 24,000 years.

In an article in the April issue of the S.A.E. JOURNAL, Dr. Egloff is quoted as saying that this estimate of motor fuel reserve is based on present yearly demand of 22 billion gallons of fuel for the 30,000,000 motor vehicles now operating in this country. Analyzing newer sources of motor fuel, he discussed in turn the various motor-fuel sources such as crude oil, natural gas, cracked gases, coal, oil shale, plants and wood, and additional compounds for higher octane numbers of fuels.

The supply estimates cited are for motor fuel of normal octane rating, Dr. Egloff stated, but today when octane requirements of motor vehicles are mounting higher this injects a new angle to the fuel production problem. Time was when an octane rating of less than 50 was acceptable to motor fuel users, but now with higher engine compression ratios the average octane rating is 70, and an octane rating of 100 is regarded as the standard requirement for aviation service.

Gasolines derived from crude oils by direct distillation range in antiknock value from about 15 to over 70 octane, with an average octane rating of about 53, the speaker declared. Cracked gasolines vary in octane rating from 65 to 80, with an average of about 70. The cracking process, he estimated, is con-

serving over 1,300,000,000 bbl. of crude oil per year. Gases containing olefin hydrocarbons are produced as a by-product of the cracking process. These gases are converted catalytically into polymer gasoline and iso-octane motor fuels, all having high antiknock properties.

In discussing coal as a source of motor fuel, Dr. Egloff cited the experience of England. One plant, he said, costing $27,000,000, is now producing 1,000 bbl. of gasoline per day from Wales bituminous coal through the hydrogenation process. The plant's daily production costs about 20 cents per gallon, yet is equivalent to only two percent of the motor-fuel demand of Great Britain as against the normal yearly increase in that country's motor fuel demand of fully 8 percent.

Analyzing natural gas as a motor-fuel source, Dr. Egloff pointed out that there are 2,000 billion cubic ft. of natural gas produced yearly, and from this source he estimated that 55 billion gal. of liquefied natural gas might be produced for motor-fuel use. As another possible fuel source, he cited alcohol from plants and wood, enormous potential reserves of which are available in this country. Such fuel sources are being utilized in England, Germany, Czechoslovakia and elsewhere as a blending agent. However, he pointed out, results from this type of motor-fuel have so far proved unsatisfactory as compared with motor performance on fuel from natural-gasoline sources.

As another source, oil-shale deposits were discussed by the speaker, who estimated that 100 years of motor-fuel supply are available in known deposits in this country when and if desired. The use of cotton seed oil was likewise cited as a possible source through use of cracking processes, an example being the case of a Chinese plant planning 250 bbl. of motor fuel daily from cotton seed oil. Dr. Egloff laid particular stress on the possibilities now opening up in the solvent extraction method, which has developed recently to the point where it provides a means of augmenting the supply of high octane gasoline for airplane and other uses.

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Master Sergeant John Dolan, the ranking Master Sergeant in the Air Corps, was placed on the Retired List at Mitchel Field, N.Y., on March 31, 1938, upon completion of 30 years' service.

Technical Sergeant William E. Field, 12th Air Base Squadron, was placed on the retired list at the Air Corps Advanced Flying School, Kelly Field, Texas, effective March 31, 1938. Technical Sergeant Field was advanced on the retired list to the rank of second lieutenant, under the provisions of the Act of Congress, approved May 7, 1932.

PURSUITERS RETURN FROM FLORIDA MANEUVERS

By the Selfridge Field Correspondent

The 17th Pursuit Squadron, commanded by Captain Dixon M. Allison, returned to their base, Selfridge Field, Mich., on March 28th, after completing its part of the Second Wing Maneuvers in Central Florida. For this maneuver the Squadron consisted of Headquarters Flight from the 17th, "B" Flight from the 94th Pursuit Squadron, and "A" Flight of the 27th Pursuit Squadron.

The whole maneuver proved to be interesting and enlightening to all concerned, inasmuch as we took the field with our brand new Seversky P-35's. From the very beginning we had ample opportunity to find out what our little Seversky stingers could do. During the movement to Tampa, the Squadron was forced to make a night landing in a very small unlighted field at Huntsville, Ala., due to unexpected severe weather conditions at Birmingham. Although our boys performed a good job of getting them down, we had plenty of cause to rejoice, as our new stingers are really put together, especially in the landing gear department.

The Squadron reached Tampa on Thursday morning, March 17th, and began preparations for the maneuvers proper. Two types of combat missions were flown, namely, aerial gunnery on a tow target, using mass fire by flights, and interception problems against B-17's, mostly at altitudes around 20,000 feet.

The people of Tampa were very pleasant to us during the maneuvers and did everything possible to make our stay there enjoyable. They also displayed great interest in our flying and in our airplanes, and seemed very pleased to have us there.

The casualties included two wing tips by way of ground loops, and three engines from as yet undetermined causes.

The Squadron departed from Tampa on Monday, March 28th, leaving four planes behind for repairs, and had an uneventful trip home, with one stop at Maxwell Field, Ala.

As a whole, we feel that we learned a lot about the performance and characteristics of our new airplanes in a very short time, and we look forward to the GHQ Maneuvers in May with confidence and pleasure.

Major Seversky spent the entire time with us in Florida, and he and his mechanic proved extremely helpful with our engineering difficulties.

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Upon the completion of their present course of instruction at the Air Corps Tactical School at Maxwell Field, Ala., the following-named Air Corps officers, students thereat, are assigned to stations as follows: Majors Edward M. Robbins and James C. Shively to Wright Field and Capt. E. T. Selzer to Selfridge.

COURSE AT TRAINING CENTER PROVES A PROFITABLE INVESTMENT
By the father of two Cadets who graduated

I was reading in a local paper a notice that a certain young man had been accepted as a Flying Cadet at the Training Center at Randolph Field. It brought back memories to me when my boys received their orders to report and, to be honest, I was as proud of their appointment as they were.

I have read at different times Cadets' opinions of their training and their future. As a parent, I am writing my opinion as to the future of the boy who has passed through the training school, with the hope that it may help in the decision of some young fellow who is anxious to go and of his parents who may be holding him back because they are concerned for the boy's future and safety.

First, from my observation, flying is not all that is taught and impressed on the Cadet. The age of most Cadets is that stage of life when most of us wondered why the necessity for orders and discipline from those in authority which, if not learned at that stage, would be a handicap throughout our lives. Self-control is taught in such a way while learning to fly that the Cadet is really taught without his knowing it. If your boy should go, ask him after he graduates if he ever bit his lips and swallowed hard. No, the life is not all roses. He will have to learn to take and give; but ask him if he would like to be otherwise. You will be surprised to know how he has enjoyed the lesson. If he cannot come up to the standards expected of him, he will be taken off flying, as otherwise his own life as well as the lives of other flyers would be endangered.

He will be taught to think and act for himself; confidence will be put in him, and it will be up to him not to break that confidence. He will be taught to fly, and when he graduates he will certainly be a flyer.

Of course, a certain amount of anxiety as to the safety of the Cadet enters the parents' minds,but everything possible is done for the safety of the Cadet, both by his instructors and also by the Army in assuring that the equipment which he uses is of the best. My anxiety was not so much for the safety of my boys, knowing that everything possible was being done in that respect; rather, it was concerned with the possibility of my boys not being able to meet the high standards expected from them and the possibility of their not being able to become flyers. If such is the case, and if there is any doubt in the minds of the instructors that the Cadet is not safe and will not become a pilot, no chances will be taken. He will be relieved from flying and sent home.

The Cadet receives the best training it is possible to obtain anywhere. If it were possible to secure this same kind of training in commercial life, the cost thereof would be far beyond the means of the average parent. In the Air Corps the boy is not only taught to fly but is paid $75.00 per month while he is under instruction.

After the boy graduates, what then? He receives a commission as a second lieutenant in the Air Reservo, is placed on active duty for a number of years, and secures a bonus at the termination of such period of active duty. He will have been paid enough money during this time as, with the exercise of a reasonable amount of thrift, to enable him to lay aside a goodly amount with which to make a start in private life.

How many young men of today, at the age of 21 to 26, average over $200.00 per month?

The Cadet has the possibility of securing a regular commission. This is not promised. However, many Reserve officers have been commissioned in the Regular Army. If the Reserve officer does not wish to remain in the Army, but does desire to earn his living by flying, there is the reassuring thought that the commercial air lines are anxious to employ as pilots graduates of the Air Corps Training Center. My eldest son, and a number of members of his class, are now in the employ of air lines. My younger son, who is now serving as a Reserve officer, has received an offer from an air line without making application for the position. It is thus seen that positions are open for these graduates of the Air Corps Training Center in the field of commercial aviation.

When the boy's training is finished, I honestly believe that, even should he then decide to discontinue flying, the time spent in the flying school and the experience and teachings which he received as a Flying Cadet will stand him in good stead in his battle through life.

It has been my pleasure to meet a number of Cadets at the graduation exercises of both of my sons, and afterwards, and I have never met a finer and more loyal set of young fellows. There must be something that binds them so closely together, and it is a pleasure to be able to think that one's son was an acquaintance and fellow student of their's.

Think it over, parents. If your boy wants to fly, go back a few years in your recollections. Perhaps you would have preferred another way of making your living than the one you are follow-

(Continued on page 14).

DOCTRINE FOR CORPS AND ARMY SQUADRON

The News Letter Correspondent of the 97th Observation Squadron (Corps & Army), Mitchel Field, L.I., New York, recently forwarded to the Air Corps Information Division a 45-page mimeographed pamphlet which, in a very comprehensive form, embodies the doctrine of this Squadron and has for its purpose "...to establish standard practice for pilots, observers and ground crews, the following procedures are published for the information and guidance of all concerned. This information.....is not to be interpreted as final or complete in every instance, but rather informative and subject to further amplification. Cooperation or teamwork between the various squadron sections and mutual understanding of individuals are the objectives sought."

Sufficient copies of this pamphlet were provided for distribution to all officers now on duty in the 97th Squadron, and for similar distribution in the future.

The Squadron has been operating under this doctrine for the past two months.

The doctrine outlines a ground procedure, air procedure and miscellaneous activities. Outstanding sub-divisions include: Instructions for ground and air operation of the O-46A Observation airplane and the R-1535-7 "Wasp" engine; Squadron formations, including discussions on assembly, turns, signals, etc.; Forced landing procedures; Airdrome procedures when away from home base; Tow-target procedures; Safety precautions on Aerial Gunnery; Tips on aerial photographic missions, including tables showing areas covered from certain altitudes, etc. The document places special emphasis on procedures to be followed when dispatched on aerial cooperative missions with ground forces.

It may be seen from the above that the real aim of the present doctrine is not to parallel a training directive but to coordinate into one document a number of small items of relative importance not only to young or inexperienced pilots but to older officers not already qualified for duty with Corps & Army Observation units. This aim has been particularly followed in the 97th Squadron. "Due to its very simplicity and broad field of material," asserts the News Letter Correspondent, "the Doctrine is not likely to be rendered antique or impossible to follow by the inception of new equipment.

"It is believed a Doctrine of this nature is valuable in any squadron equipped with one or two-place ships, as these organizations are more likely to have a large percentage of young pilots to whom it would be of great material benefit."

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O B I T U A R I E S

While ferrying a P-35 Pursuit airplane from the factory to his home station at Selfridge Field, Mich., on April 9th, Second Lieutenant Eugene Brecht, Jr., Air Corps, crashed near Athens, Penna., and was killed.

Lieut. Brecht was born at Des Moines, Iowa, July 14, 1909. After graduating from high school at San Diego, Calif., he attended the San Diego State Teachers' College for a half year, and Drake University for one and one-half years.

Qualifying for appointment as a Flying Cadet, he began training at the Air Corps Primary Flying School at March Field, Calif., March 1, 1931, and upon graduation therefrom on September 25, 1931, he was transferred to the Advanced Flying School at Kelly Field, Texas, where he specialized in Pursuit Aviation.

Upon his graduation from Kelly Field on February 26, 1932, he was commissioned a second lieutenant in the Air Reserve, rated as "Airplane Pilot," and assigned to extended active duty with the 6th Pursuit Squadron, 18th Pursuit Group, at Wheeler Field, Hawaiian Department.

In December, 1933, Lieut. Brecht was transferred to March Field, and was assigned to the 73rd Pursuit Squadron, with which he served until March, 1934, when he reverted to inactive status. Subsequently he enlisted as a Private in the Air Corps in order to be eligible to take the examination for appointment as a second lieutenant in the Air Corps, Regular Army. He received this appointment, with rank from August 1, 1935, and was assigned to duty at Selfridge Field.

Flying Cadet Emil H. Petri, a student in the Attack Section of the Air Corps Advanced Flying School, Kelly Field, Texas, died in the Station Hospital at Fort Sam Houston, Texas, on the afternoon of April 1, 1938, from injuries received in the crash of an A-12 airplane he was flying.

Cadet Petri was flying a wing position in a 3-plane formation, led by 2nd Lieut. W.D. Griffith, Air Reserve, his instructor, when he pulled out of this formation and headed for a cornfield. The airplane landed in a corner of the field on its engine and one wing, demolishing it completely and severely injuring the pilot. Two farmers removed him from the cockpit and, with the aid of Lieut. Griffith, who landed in the same field, brought him to Kelly Field. He was later sent to the station hospital at Fort Sam Houston. "It is believed," says the News Letter Correspondent, "that the cause of the forced landing was the result of running out of gas on the auxiliary tank."

Flying Cadet Douglas Chalmers, a student in the Observation Section, was detailed to accompany the remains of the

(Continued on Page 14).

Ed. Note: This is the first installment of a series of articles which will be published in the Air Corps News Letter. Succeeding installments will deal more specifically with individual subjects; for example, general organization, the bombing and gunnery range, climatic advantages for photography, bombing and gunnery, etc.

With the transfer of the Departments of Photography and Armament to this new Denver location an accomplished fact, the new branch of The Air Corps Technical School, under the command of Lieut. Col. Junius W. Jones, is in full operation.

By air, by automobile, and by troop train, a total of twenty officers, two hundred and sixteen men and five civilian employees of the School were transferred from Chanute Field, Rantoul, Ill., during December, January and February. Of these, the majority were transferred by troop train which arrived in Denver on February 12th.

To augment the permanent personnel, 12 officers and 135 enlisted men had or have since been transferred to Lowry Field. At present the strength of the command is 19 permanent officers, 13 student officers, 185 permanent enlisted men and 166 enlisted students.

The task of unloading, uncrating and moving school and post equipment was an even larger assignment than had been the crating and loading. Careful planning and a high degree of organization made possible the completion of this task in a remarkably short time.

So rapid was the process of reorganization at the new location that classes were started in full swing on February 28th.

Having graduated one class of enlisted students, the Department of Photography now has 6 student officers and 47 enlisted students undergoing instruction.

The Department of Armament has also graduated one class of enlisted students, consisting of 10 men. At present, 82 men are undergoing instruction in that Department.

To say that the Denver location is a "natural" for the two Departments is simply an understatement. The climate, the environment, the friendly populace, the remarkable spirit of cooperation displayed by the City of Denver, and the many natural advantages of the new site, all combine to provide the School with an ideal location.

The above factors are largely responsible for the high state of morale prevalent among the personnel at the School. Certainly, no new station ever began with such excellent morale. Daily the morale barometer shows a slight but steady rise. The student motto is: "Let's stay in Denver."

At present the following officers are on permanent duty status at the School:

Lieutenant Colonels

Junius W. Jones, Air Corps
Louis M. Field, Medical Corps.

Majors, Air Corps

Donald G. Stitt — Clarence C. Wilson
Alfred L. Jewett — Devereux M. Meyers

Captains, Air Corps

Donald W. Norwood — Richard D. Reeve
John K. Nissley — George L. Murray
Herbert W. Anderson

Captain, Q.M. Corps

Harold D. Stetson

1st Lieuts., Air Corps

Norman H. Ives — Wiley D. Ganey
John C. Covington

2nd Lieuts., Air Corps

Charles H. Leitner — Thomas F. Langben

Air Reserve Officers

1st Lieut. Richard C. Ragle
2nd Lieut. Monty Duran Wilson

Assigned as students in the Department of Photography are Lieut. Colonel Orlo H. Quinn, 1st Lieuts. Thomas R. Starratt, Jerald W. McCoy, Donald L. Hardy, 2nd Lieut. H.C. Nelson, Air Corps, and 2nd Lieut. Jesus A. Villamor, Philippine Army.

Officers undergoing instruction in the Department of Armament are Captain Harold R. Lee, Marine Corps; 1st Lieuts. Melie J. Coutlee, Jarred V. Crabb, William A. Travis, 2nd Lieuts. Henry B. Fisher, William M. Gross and Joseph C. Moore, Air Corps.

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INDUSTRIAL COLLEGE STUDENTS ASSIGNED

Under Special Orders of the War Department, recently issued, the following-named Air Corps officers, effective upon the completion of their present course of instruction at the Army Industrial College, Washington, D.C., are assigned to stations, as follows:

Majors Don L. Hutchins, John A. Laird, Edward M. Powers and Clarence P. Kane to the Materiel Division, Wright Field, Ohio.

Major Malcolm S. Lawton to the San Antonio Air Depot, Duncan Field, Texas.

Captain Julian B. Haddon to Maxwell Field, Ala.

Majors Shiras A. Blair and Robert T. Zane to Langley Field, Va.

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Major Lawrence P. Hickey, upon the completion of his present course of instruction at the Army War College, Fort Humphreys, D.C., is assigned to duty at Selfridge Field, Mt. Clemens, Mich.

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ARMY DAY AT LANGLEY FIELD

The people of the Virginia Tidewater Peninsula had an opportunity to see something of Langley Field's functions and its materiel on Army Day, April 6th. This airdrome, which is regarded as the most strategic air base in the nation, had arranged to welcome visitors, and gave special air demonstrations for their benefit.

From 9:00 o'clock in the morning to 5:00 o'clock in the afternoon, the 8th Pursuit Group had one PB-2 and one P-6 airplane parked on the ramp in front of the Group Headquarters Building, with an attendant at each craft to answer the questions of visitors. The Group Headquarters hangar was also open to the public for inspection.

The Second Bombardment Group had one B-17 Bomber (Flying Fortress) and one B-10 (2-engine Bomber) parked in front of Group Headquarters, with an attendant at each plane.

The 21st Reconnaissance Squadron had one B-18 plane parked on the ramp in front of Group Headquarters, with an attendant.

The 3rd Observation Squadron kept the balloon hangar open for inspection. Other Base activities which were available for inspection included the Base Operations and the Meteorological Station. Other airplanes on display were a C-33, an A-17 and an OA-4A.

At one o'clock, a squadron of Pursuit planes, "Flying Fortresses", B-18's and Observation planes flew in the vicinity of the Peninsula on tactical missions. They passed over Hampton, Phoebes, Newport News and neighboring sections to enable the local residents to see them in action.

The Meteorological Station, perhaps one of the most interesting sections at Langley Field, both to the layman and to the aviation enthusiast, was open for inspection by the public on Army Day, from 9:00 a.m. to 5:00 p.m.

Several officers and enlisted men are daily engaged in computing valuable data concerning weather conditions at Langley Field and in surrounding areas. Often it is their findings which determine whether it is safe to take one of Uncle Sam's valuable planes off the ground. Workers maintain 24-hour duty at this weather bureau.

Among the duties of the Meteorological Station are the computing of rainfall, the recording of periodical temperatures, the study of winds, the predicting of probable weather conditions in the future and the description of visibility in the air. These services are only a small part of the activities of this Station.

In addition to offering valuable service to pilots at the Peninsula Airdrome, fisherman who ply in and out of local waters take advantage of the forecasts before deciding to risk the outlying waters, where storms often take their toll.

On Army Day, guides were on duty at the Meteorological Station and explained various details of the various equipment employed in making weather computations.

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OFFICERS ASSIGNED TO TACTICAL SCHOOL

Under Special Orders of the War Department recently issued, the following-named Air Corps officers are assigned to duty as students in the 1938-1939 course at the Air Corps Tactical School at Maxwell Field, Ala., reporting to the Commandant of this School towards the close of next summer, viz:

Major Ray G. Harris, from the Office of the District Representative, Western Procurement District, Inglewood, Calif.

Major Clarence B. Lober and 1st Lieut. Austin A. Straubel, from Fort Lewis, Washington.

Major Joseph T. Morris and Captain Russell J. Minty, from the Rockwell Air Depot, Calif.

Captain A.J. Kerwin Malone, from March Field, Calif.

1st Lieut. Aubry L. Moore, from Hamilton Field, Calif.

Captain Townsend Griffiss, from Maxwell Field, Ala.

Captain James B. Burwell, from Randolph Field, Texas.

Captain Archibald Y. Smith, from Langley Field, Va.

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The Course at the Training Center

(Continued from Page 1).

ing now. Don't stand in the boy's way.

To the Training Center at Randolph Field I would like to say: "I gave you two boys of whom I was proud; after their graduation I am prouder yet. Thanks a lot."

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Obituaries

(Continued from Page 12).

deceased Cadet to his father, Mr. C.H. Petri, at Austin, Texas.

Cadet Petri was born at Austin, Texas, November 19, 1914. He graduated from the grammar schools and high schools of that city, and from the University of Texas in 1937. Appointed a Flying Cadet in the Air Corps, he was assigned to the July, 1937, Class at the Primary Flying School, Randolph Field, Texas, from which he graduated on February 23, 1938, and was assigned to the Attack Section of the Advanced Flying School at Kelly Field.

The Air Corps extends its deep sympathy to the bereaved families of these two young men who died in the service.

V-7699, A.C.

A NEW CRASH BOAT FOR THE AIR CORPS
By the Mitchel Field Correspondent

An auspicious launching for one of the Air Corps' newest developments, a sea-going crash boat, took place at Greenport, Long Island, New York, on March 18th, over 200 persons being present for the ceremony, including representatives from the Inspection Division of the Office of the Chief of the Air Corps and other War Department agencies. Several prominent civilians were in attendance, as were members of the boat building firm and the engine firm.

Although not much information is available for release, it was stated that the new boat is called the "P-11." It is 72 feet long and is thoroughly streamlined. She is fitted with two Capitol "P-12" engines, converted for marine use by the Capitol Auto Engine Works at St. Paul, Minn. These engines are connected to twin screws, and provisions have been made in the boat construction to enable the installation of a third engine, should the Air Corps service test deem it advisable. The P-12 is converted from Wright "Tornado" aircraft engines and may be cooled by either fresh or salt water. It was reported that the designers expect the crash boat to develop 32 knots and to be seaworthy.

The new boat is large and commodious and has accommodations for a permanent crew of four, namely, captain, engineer, radio operator, and medical man or other crew member who would be qualified as a life-saver and swimmer.

Preliminary tests are now being undertaken from the manufacturer's plant, the Greenport Basin and Construction Company on Long Island, and will continue for approximately one month. The boat will then be taken to the Brooklyn Port of Embarkation, where special Army equipment will be installed, ignition wiring shielded for radio use, etc. From there it is scheduled to go, under its own power, to Langley Field, Va., and eventually to the Hawaiian Department, where it will be assigned to the new bombardment base at Hickam Field.

The tests are being conducted by Mr. G.P. Cross, a civilian Inspector of Construction, representing the Quartermaster Corps. He is assisted by Staff Sergeant Emile J. Cloutier, Air Corps.

The "P-11" has been requested by the Air Corps for use in the Hawaiian Islands as a sea-going crash rescue boat. Previously, the Air Corps has used only Criss-Craft or similar small sized craft which, although capable of high speeds, could safely be operated only on a sheltered lake or bay. In the Hawaiian Department it has frequently been necessary to have a Coast Guard cutter stand by, and sometimes to call upon the Navy for assistance in case of plane crashes at sea. It is anticipated that the "P-11" will render the Army more nearly independent of these agencies, and it is believed may speed up the time required to reach the scene of an aircraft unfortunate enough to have a forced landing in rough waters outside the limits of sheltered Pearl Harbor.

Staff Sergeant Cloutier has been on this detail since December 20, 1937, when he left Selfridge Field on what he imagined would be a transport ride to the land of balmy breezes and cocoanut palms - Hawaii. Last minute orders ended his journey at the Capitol Auto Engine Works at St. Paul, Minn., with the thermometer at 37 degrees below zero. He was on detached service there for a month for familiarization with the engines. He followed the engines to the east coast, and on February 12th was attached to Mitchel Field. From here he made several trips each week to the Greenport Basin to observe their installation in the boat. Following the launching, Sergeant Cloutier was ordered to Greenport and will work directly with Mr. Cross during the preliminary tests.

Sergeant Cloutier stated that he anticipates assignment as engineer on the "P-11." During his stay at Mitchel Field he has spent much of his spare time reading up on marine engines, boats, navigation, and has even been forced to listen to a few shark stories, cases of extreme sea-sickness, etc., which were readily furnished by former foreign service personnel now at that base. He said that, so far as he knows, the Air Corps has made no provisions for fishing tackle as an item of equipment on the "P-11."

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"ARMY DAY" AT CHANUTE FIELD

By way of celebrating "Army Day," Major Earle G. Harper, Air Corps, representing the Air Corps Technical School at Chanute Field, Rantoul, Ill., issued a cordial invitation to members of surrounding communities to come and visit the School on April 6th.

In spite of a cold driving rain which lasted all day, over a thousand visitors arrived. Classes were held as usual, though they were somewhat curtailed by the detail of enlisted instructors as guides. Comments from the guests indicated much surprise at the completeness of equipment for instruction and admiration for the enthusiasm of the students in their work. As one elderly lady remarked to Captain Norme D. Frost, Director of the Department of Communications, "Why, I've never seen so many men busy at one time in all my life."

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Technical Sergeant Max Simon, 15th Air Base Squadron, by virtue of completing 30 years' service, is placed on the retired list at Maxwell Field, Ala., effective April 30, 1938.

V-7699, A.C.

AERONAUTICAL EXHIBIT AT ORANGE SHOW

Drawing a record attendance of more than 200,000 people during its ten-day period, the 28th consecutive annual National Orange Show closed at San Bernardino on March 27th.

Outstanding among the vast number of exhibits representing communities from all over the State was the gold cup and blue ribbon winning exhibit from March Field, Riverside, Calif. The exhibit consisted of airplane engines, parachute and photographic equipment, airplane instruments, bombs and ordnance equipment with an assessed valuation in excess of $30,000. The War Department approved the display, which was the first Air Corps exhibit in the history of the Orange Show.

Responsible for the display was Colonel John H. Pirie, Commanding Officer of March Field. Captain Philip Schwartz of the Ordnance Department prepared the splendid Ordnance Exhibit. Major Early E.W. Duncan, Public Relations Officer, March Field, was charged with making all necessary arrangements for the exhibit, and was responsible for the exhibit during the period of the show. In charge of describing and explaining the various equipment to the public were: Staff Sergeant McClurg, photo equipment; Sergeant Barber, airplane engines; Corporal Springsteen, parachutes and instruments; Sergeant Saint Amour, Ordnance equipment, with Staff Sergeant F.W. Smith in general charge.

All visitors were asked to register in a book maintained at the display. At the close of the Show it was discovered that more than twenty thousand names had been inscribed, among them that of Governor Merriam, who seemed quite interested in the exhibit. Connie Boswell who, with Gus Arnheim and his orchestra entertained at the Show, were supplemented by many others, including Dorothy Lamour, Frances Langford, Zazu Pitts, Joe E. Brown, Leo Carrillo, etc. All of them were guest entertainers. They commended the exhibit and inscribed their names in the register. This book included names from every State in the union and some from several foreign countries.

On Tuesday, March 22nd, Hal Chambers, KFWB announcer, interviewed the March Field exhibitors over the Mutual hookup. He asked such questions as: "What is this thing that looks like a flower pot?" The answer startled radio listeners: "A flower pot! It's not quite as innocent as that. It's a fragmentation bomb!" Each man assigned to a particular part of the display then explained over the radio the uses of different equipment in answer to queries by the announcer. Said visitors who streamed in after the broadcast: "We heard you over the radio, and you went over big!"

Through the efforts of Major Duncan, the President of the Show, Mr. Swing, and the manager, Mr. Starke, declared Wednesday, March 23rd, "March Field Day," and admitted all officers and men of March Field free of charge.

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RESERVE OFFICERS VISIT MARCH FIELD

Some 2500 members of the Southern California Army Ordnance Association, Reserve Officers and their families, visited March Field, Riverside, Calif., on Sunday, March 20th. It was the largest gathering of Reserve Officers ever assembled on the Pacific Coast. The visitors were welcomed by Brigadier General Delos C. Emmons, First Wing Commander.

The speakers included Colonel John H. Pirie, Commanding Officer of March Field; Colonel Halsey A. Yates, Regular Army Officer in charge of Organized Reserve training in Southern California; Mr. Earl B. Gilmore, President of the Army Ordnance Association and President of the Gilmore Oil Co., and Mayor William C. Evans of Riverside. The group arrived at March Field at 10:00 a.m., and spent the day there. The program was arranged for by Captain Philip Schwartz, March Field Ordnance Officer. Major Early E.W. Duncan, Public Relations Officer of March Field, supervised all arrangements and the carrying out of the program.

The various demonstrations during the day included anti-aircraft gun drills by a detachment of the 63rd Coast Artillery; an attack by Attack airplanes; loading of various type bombs; dropping of bombs and curtains of water representing chemicals; firing of field guns, 37 millimeter guns, trench mortars, automatic rifles and machine guns, and the loading of Bombardment airplanes. All types of weapons and equipment were on display.

Luncheon was provided for all visitors at the various squadron messes and the Officers' Club, following which Army Ordnance pictures were shown at the Post Theatre.

In recognition of his outstanding service in connection with the organizing and promoting of the Army Ordnance Association, and the splendid work he has accomplished in connection with Ordnance activities in Southern California, Captain Philip Schwartz was presented with a watch by the Association, the presentation being made by the Association's President, Mr. Earl B. Gilmore.

The visitors expressed themselves as having spent an extremely enjoyable as well as a profitable day. Mr. Gilmore stated that, if agreeable to the Commanding Officer of March Field, the Ordnance Association would like to make the meeting an annual affair.

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Major Elmer E. Adler, Air Corps, has been relieved as a member of the War Department General Staff, Washington, and assigned to duty at Hamilton Field, Calif.

RADIO SCHOOL AT HAMILTON FIELD

A class of 31 students reported on December 2, 1937, for a course in Basic Radio Theory; Basic Electrical Theory; Code, Army-Navy Procedure; Basic Shopwork; Field Telephones and Aircraft Equipment. Shorter subjects included Supply Letters and Stock Catalogues; Radio Aids; Antenna Construction and Cords and Plugs.

On February 19th, 18 of the class were graduated. Eight students were lost to Hamilton Field, due to the transfer to the Hawaiian Department of the 31st Bombardment Squadron. Two men were transferred to Fort Monmouth, N.J.; one was transferred to the Radio School at Chanute Field, Ill., while two were lost due to hospitalization.

Classes were held under the direct supervision of 1st Lieut. R.E.L. Pirtle, Air Corps, Assistant Signal Officor, with Privates, 1st Class, Harry Schwartzberg and Lester Barr as instructors. All classes were held in the morning and students were given practical duties in their respective organizations in the afternoon periods. All phases of the course were operated on a time period, and a total of 180 class hours completed by the graduates of this school, the first radio school to be held on this post.

Practical work in the class consisted of soldering, sweating, use of tools and nomenclature of tools. Field telephones were covered, the men using Chanute Field textbooks, and one telephone was set up on an instruction board. It is contemplated having ten such boards for the next class. Due to lack of equipment, enlarged photographs of aircraft equipment were used for instructional purposes. In spite of this handicap, the students apparently absorbed quite a bit of the instruction, as marks were rather high for the average of the class.

Chanute Field stencils and textbooks, the Radio Amateur Hand Book, and stencils prepared by the instructors were used for theory studies and class books. The Test Set, Type I-56-A, was covered, using the stencils as prepared by Chanute Field for a textbook. For the next class three such units will be available.

Instructions given in this class were such as to instill in the minds of the students a basic knowledge of the principles of radio, electricity and aircraft equipment. Part of the course includes a minimum of seven days' flying as members of a combat crew by the student upon his return to the organization to which he belongs. Those students who started from "scratch," having no previous code or radio knowledge, will graduate with code speeds varying from nine to fourteen words per minute. Four typewriters received in the late period of the course aided those who had attained the speed of 18 to 22 words per minute.

The students who graduated were as follows:

9th Bombardment Squadron: Privates L.C. Belcher, R.E. Delong, R.F. Green.

11th Bombardment Squadron: Privates M.R. Smith, R.J. Mushrall, F.L. Stout.

88th Reconnaissance Squadron: Privates C.E. Burkhart, T.J. McGurgan, Jr., I.E. Reeder and E.B. Shouldis.

Hq. Squadron, 7th Bombardment Group: Privates H.C. Lloyd.

5th Air Base Squadron: Privates C.F. Buchannan, T.F. Burkhart, J.C. Harris, D. Phair, D.W. Ritchie, R.B. Stainінger and L.C. Stapleton.

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NINE GRADUATE IN AVIATION MEDICINE

Graduation exercises for the Class of March 31, 1938, of the School of Aviation Medicine, Randolph Field, Texas, were conducted on that date. Of the nine medical officers who graduated, Captains Reinhardt L. Schmidtke, William D. Willis, Joseph A. Baird, Jay F. Gamel, 1st Lieuts. William C. Harrison and Edward Sigerfoos are from the Regular Army; Captain William R. Stovall, from the Medical Reserve; Captain Youbert T. Johnson from the Minnesota National Guard, and Major Julio Cesar Aguilera from the Mexican Army.

During the course of the graduation exercises, Chaplain J.W. Westerman, U.S. Army, delivered the Invocation and Benediction. The introductory remarks were made by Lieut. Colonel N.C. Mashburn, Medical Corps, Acting Commandant of the School of Aviation Medicine, and the address by Lieut. Colonel John B. Brooks, Commandant of the Primary Flying School, Randolph Field, Texas, while the diplomas were presented by Brigadier General James E. Chaney, Commanding General of the Air Corps Training Center.

The Staff of the School of Aviation Medicine is as follows:

Commandant: Lieut. Colonel C.L. Beaven; Assistant Commandant, Lieut. Colonel N.C. Mashburn; Director of Department of Ophthalmology and Otology, Major J.M. Hargreaves; Director of Department of Psychology, Captain W.A. Carlson; Director of Department of Aviation Medicine, Captain C.L. Leedham; Assistant Director of Department of Aviation Medicine, Captain N.W. White; Director, Department of Neuro-psychiatry, Captain E.J. Kendricks, all of the Medical Corps, U.S. Army.

The Executive Officer of the School is Captain Benjamin R. Luscomb, Medical Administrative Corps.

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The cover design featuring this issue of the News Letter is the artistic effort of Sergeant Frank J. Lorenz, Hq. and Hq. Sqdn., GHQ Air Force, Langley Field, Va. Thanks, Sergeant, and come again.

V-7699, A.C.

"ARMY DAY" AT WRIGHT FIELD

Brigadier General A.W. Robins, Chief of the Air Corps Materiel Division, issued an invitation through the Daytom newspapers for an "open house" for visitors at Wright Field on Wednesday, April 6th, in celebration of "Army Day."

The Army Aeronautical Museum was thrown open to the public, and a hangar was devoted to the exhibition of the new type Army aircraft. Reserve officers were called to active duty for the day to assist in the handling of the crowds, which, in spite of a heavy downpour of rain, were estimated at between 5,000 and 6,000 people.

Flying throughout the day had been planned. In the morning, even through the rain, the airplanes bravely took to the skies but finally gave up, the ceiling being so low that spectators could scarcely see them even when flying directly above the hangars. Visitors registered from California, New York, Louisiana and Minnesota, and eight other States lying within these boundaries. If the enthusiasm of the boys who were present is any indication, the United States may anticipate a continuing strong air force.

Lieut. Colonel Hugh Mitchell, Signal Corps, Director of the Aircraft Radio Laboratory, was the principal speaker at a banquet held on the night of April 6th by the Military Order of World War Veterans.

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VISITS TO THE MATERIEL DIVISION PROVE AN EDUCATIONAL AID.

A paragraph quoted from a letter to the Chief of the Materiel Division, Wright Field, Ohio, from the head of the Department of Aeronautics of the University of Minnesota is enlightening from the point of view of the extent of the benefits of Air Corps research and experimentation which, of course, are prosecuted primarily for purposes of national defense. This letter was received after a visit of a class of students from the University of Minnesota to the Materiel Division. The quoted paragraph is as follows:

"We believe that this trip is one of the high-lights of the students four year college career, and their expressed opinions more than substantiate this belief. Our making this trip a compulsory part of the course in aeronautical engineering seems to work out very well, and it is our hope to continue it in the years to come."

The University of Cincinnati and Purdue University also provide a visit to Wright Field as part of their curricula in aeronautical engineering courses.

COL. BRANT ASSUMES COMMAND AT CHANUTE

Colonel Gerald C. Brant, recently appointed Commandant of the Air Corps Technical Schools at Chanute Field, Ill., and Lowry Field, Denver, Colorado, took over his duties on April 4th. Assisting him as post commander and Assistant Commandant of the Chanute Field School is Col. Devenport Johnson, who has been in command pending Colonel Brant's arrival.

On the evening of Army Day, April 6th, Colonel and Mrs. Brant and Colonel and Mrs. Davenport Johnson were welcomed by the officers and ladies of the post at a joint reception held in the Officers' Club.

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CAPTAIN LAUGHLIN IS GUEST SPEAKER

The Federal Bar Association had as its guest speaker on Army Day, April 6th, at one of the Washington hotels, Captain Robert V. Laughlin, of the Judge Advocate General's Department. The speaker chose as his subject "The Liability of the United States for Use of Patented Products."

Captain Laughlin was Judge Advocate at Wright Field, Ohio, from 1932 to 1935, and for approximately two years he was on duty in the Office of the Chief of the Air Corps in Washington. He is now on duty in the Office of the Judge Advocate General, War Department.

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WAR DEPARTMENT SPECIAL ORDERS

Changes of Station

To Langley Field, Va.: Major Lloyd Barnett, from the Philippines.

To Washington, D.C.: Lieut. Colonel George E. Stratemeyer, from Hamilton Field, Calif., for duty as student at the Army War College, 1938-1939 course.

To the Philippines: 1st Lieut. Wm. A.R. Robertson, upon completion of his present course of instruction at the Command and General Staff School, Fort Leavenworth, Kansas.

Promotions

Major Romeyn B. Hough, Jr., to the temporary rank of Lieut. Colonel, from March 8, 1938.

Major Edwin F. Carey (Captain) to grade of Major, with rank from March 21, 1938, subject to examination required by law.

Reserve Officers to Extended Active Duty

2nd Lieut. Jay K. Montgomery, of Hanford, Calif., to Brooks Field, Texas, to April 26, 1941.

2nd Lieut. Charles J. Howe, of Clairton, Pa., to Langley Field, Va., to April 1, 1941.

2nd Lieut. Bernard C. Rose, of Wethersfield, Conn., to Mitchel Field, N.Y., to April 6, 1941.

Air Corps News Letter



Issued by the Office of the Chief of the Air Corps, War Department, Washington, D.C.

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VOL. XXI AIR CORPS NEWS LETTER NO. 9.

Information Division
Air Corps

May 1, 1938

Munitions Building
Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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THE SECOND WING AIR EXERCISES IN FLORIDA

Tactical squadrons and groups of the Second Wing, General Headquarters Air Force, U.S. Army, concentrated in Florida during the period from March 14th to 31st for their annual field exercises. In conformity with the requirements of the War Department Training Directive for all air units of the Army, a part of each year is spent in operating away from the permanent air bases and installations of these units. The field exercises of the Wing also fill the purpose of a warming-up period for the field exercises of the entire Air Force scheduled to be held during the month of May.

The area including Central and North Florida was selected this year for two general reasons; first, the probability of very unfavorable weather in the rest of the Eastern seaboard; and, second, the desire to operate far enough from home to make supply and administration a real problem. Flying facilities in the selected area were very good, there being several cities in close proximity with first class airdromes. This was also a vital point, since the operations of the Second Wing include use of the new four-engined B-17, or "Flying Fortress," as well as the latest type of Pursuit airplane, the Seversky P-35.

The decision once made to hold the exercises in Florida, a preliminary inspection was made in February by staff officers of the Wing. On the first of March, the advanced echelon of the ground organization moved out from the home base at Langley Field, Va., and proceeded by motor transport to the Municipal Airport at Jacksonville, Fla. This movement occupied two days on the road, but proceeded without trouble of any kind. The plan was to set up at Jacksonville an advanced supply base for all units in the field farther south. This base was designated "The Sub-Air Base of the Langley Field Air Base." Major Joseph H. Davidson, of the air base at Selfridge Field, Mich., was appointed to command this sub-base, under the remote control of the home base at Langley Field, commanded by Colonel Walter R. Weaver.

It was the problem of the personnel at Jacksonville not only to set up and maintain a clearing-house for all supplies for the units in the field, some of them hundreds of miles away, but also to place all selected airdromes in condition to receive and support the operations of the various Groups bivouacked at each. In order to avoid the transportation or purchase of large amounts of various articles, such as cots, tentage and lumber, appeal was made to the Florida National Guard for the loan of such articles during the period. The results from this appeal were gratifying in the extreme. The Florida organizations pitched in and lent the Air Force everything but their shirts, and even helped in the transportation problem. Tent floors, tents and cots were moved from the National Guard camp at Camp Foster, Jacksonville, and other points in the State. The sub-base at Jacksonville Airport went up in jig time, and by the 7th of March the camp at the southwest corner of the airdrome was fully established.

Major Davidson's job was now to prepare the other airdromes for the tactical operations of the fighting air units. Again the Florida National Guard lent valuable assistance. Through the kind offices of Brigadier General Vivian Collins, State Adjutant General at the St. Augustine headquarters, and Brigadier General Sumter L. Lowry, commanding the 56th Artillery Brigade, Guard officers at each of the outlying cities lent time and much effort to help out their brothers in the Regular Service. On the date set for units to occupy their airdromes, everything was shipshape.

The movement of tactical units from their home bases was scheduled to begin on March 14th. This movement comprised many thousands of miles of flying. The Second Wing of the GHQ Air Force, being the largest of the three Wings comprising that body, its member units ordinarily occupy the air bases at Langley Field, Va.; Selfridge Field, Mich., and Mitchel Field, Long Island, N.Y. As field airdromes for these various units, the Wing selected municipal airports as follows:

1st Pursuit Group, Selfridge Field, Mich., at Peter O. Knight Airport, Tampa.

2nd Bombardment Group, Langley Field, Va., at Municipal Airport, Orlando

8th Pursuit Group, Langley Field, Va., at Municipal Airport, Sarasota.

9th Bombardment Group, Mitchel Field, N.Y., at Municipal Airport, Lakeland.

18th Reconnaissance Squadron, Mitchel Field, N.Y., at Peter O. Knight Airport.
21st Reconnaissance Squadron, Langley Field, Va., at Peter O. Knight Airport.
The staff of the Second Wing moved to Peter O. Knight Field at Tampa in order to maintain close contact with the tactical squadrons in the conduct of their exercises.

Flying Fortresses Base at Orlando

Of the airdromes in the region selected for the field exercises, the finest and most suitable to the operation of very heavy airplanes was found to be that at Orlando. This airport, lately completed, contains three very fine runways and has excellent approaches. It was therefore decided to put the "Flying Fortresses," or B-17's, at that point. Officers from the sub-base at Jacksonville prepared the way and made arrangements for billeting and supply of officers and men. Mr. Ed Nilson, Orlando's Director of Aviation, and other city officials did a marvelous job of preparing accommodations for the visiting bombers. Officers and men were billeted at the Fair grounds in several very beautiful buildings. Showers and latrines were installed and ready on the date promised, and every facility that the city offered was placed at the disposal of the Second Group. Lieut. Colonel Robert Olds, commanding the Group, arrived in the first of the big four-engined Bombers at noon on Monday, March 14th, and was followed by the remainder of his organization the following day.

The entire Group, comprising the 20th, 49th and 96th Bombardment Squadrons, brought with them nine of the "Flying Fortresses," three Douglas B-18 two-engined Light Bombers, and two A-17 Attack planes for utility purposes. The personnel numbered 55 officers and 225 enlisted men. A field radio station and other necessary navigation and communication aids were set up at once, and the Group proceeded with their training.

At Lakeland, the temporary home of the 9th Bombardment Group from Mitchel Field, the officers and men were quartered in the brand new Municipal Swimming Pool (complete with showers) and the Armory, respectively. These fine buildings were ideal for the purpose, being adjacent to the excellent airport. The 9th Group brought with them 37 officers, 210 enlisted men and 21 Martin B-10B Light Bombers. This Group contains the 1st, 5th and 99th Bombardment Squadrons, and is commanded by Lieut. Colonel Carl W. Connell.

Sarasota, some 50 miles south of Tampa, was designated the airdrome of the 8th Pursuit Group, of Langley Field. This organization, consisting of the 33rd, 35th and 36th Pursuit Squadrons, and commanded by Lieut. Colonel A.H. Gilkeson, was bivouacked on the flying field itself. They brought with them 25 officers and 143 enlisted men. Immediately adjacent to the flying field are the winter quarters of the famous Ringling Brothers and Barnum and Bailey Circus. It was interesting, to say the least, to take off over a herd of elephants and giraffes. The animals, however, didn't seem to mind at all. This Group was reduced to one squadron for the period of the maneuvers, and was equipped with 22 Consolidated PB-2's.

The Municipal Airport at Tampa, "Peter O. Knight Field," was the busiest of the five airdromes occupied by the Second Wing in Florida. Stationed here were the First Pursuit Group of Selfridge Field, Mich., commanded by Major Edwin C. House; the 18th and the 21st Reconnaissance Squadrons. The latter two organizations operated directly under Wing Headquarters, which was also established at this point. The First Pursuit Group was represented by the 17th Pursuit Squadron only.

Peter O. Knight Airport is very beautifully located at the southern edge of Tampa on one of the artificial islands constructed by the city some years ago. While the field is rather small laterally, plans call for further additions, and when they are completed this should be one of the fine fields in the southeast. A very large and very beautiful administration building, completed by the PWA just before the maneuvers, provided excellent quarters for the many officers of Second Wing Headquarters.

Colonel Clagett Commands Field Exercises

On the first of March, just before the start of the Wing's field training period, Brigadier General Gerald C. Brant, Commander of the Second Wing, was transferred to the command of the Air Corps Technical School at Chanute Field, Ill., and Denver, Colorado, as a result of the expiration of his three years' detail as Wing Commander. The command of the field exercises of the Wing, therefore, fell on the shoulders of Colonel Henry B. Clagett, commanding the air base at Selfridge Field, Mich. Colonel Clagett proceeded at once to Langley Field, home headquarters of the Wing, and took command, going into the field with the first units to move out. Throughout the period of the exercises his Lockheed C-36 Transport was busily traveling from one point to another with his huge frame squeezed into the cockpit next to his co-pilot, Major W.S. Sweeley. He expressed himself as wellpleased with the results attained by the personnel of the sub-base in paving the way for the fighting air units, and stated that the lessons taught by various phases of the field exercises were of utmost value to future development of the Air Force.

New Aircraft Receive Tough Baptism

One of the prime objects of the Field Exercises was to try out the new aircraft with which a part of the Wing is now

equipped. The B-17's, the B-18's and the Seversky Pursuit planes had not previously been taken into the field for any extended period. Although the "Flying Fortresses," (recently returned from the Good Will Flight to Buenos Aires) had valuable expefience in operating from strange and distant airdromes, the question of maintenance and supply day after day in the field had not been tried out as yet. The Seversky Pursuit planes were less than a month old for the most part, and the B-18 Douglas planes have been in service only about a year.

In addition to problems of supply, maintenance and repair, an intensive study was made of the comparative performances of new and old aircraft, also between various types. The Bombers and the Pursuit were tried out at all altitudes and under all possible conditions, and much useful information was acquired for future reference. The two Reconnaissance Squadrons maintained long distance patrols during the tactical problems and performed a tremendous amount of photography and map-making flights. A trailer containing a complete photographic laboratory was loaned to the Second Wing by the Materiel Division at Wright Field, and through its use extremely valuable work was performed for the fighting echelon.

Lack of lighting equipment at the various airdromes was a very serious handicap to night operations, especially for the larger types of aircraft, and very little of this type of training was performed. Gunnery and bombing practice occupied much of the time in the air.

There being no available ranges over land areas in this part of Florida, bombing was performed far out in the Gulf of Mexico and the Atlantic. A small quantity of oil dropped on the water soon spread out into an excellent target, and practice was conducted in this manner. The Pursuit units confined their gunnery to firing on towed targets in deserted areas along the West Coast near Tampa.

Air Minded Florida

Perhaps due to the fact that these air exercises were the first real opportunity citizens in central and western Florida have had of witnessing the operations of a large part of the modern Air Force, the interest displayed was remarkable. Great crowds thronged over each airport at the least sign of aerial activity, and none of the fields was ever completely free of civilian onlookers.

As a sign of appreciation of the interest shown in the Army's air defenses, Colonel Clagett ordered Sunday, March 20th, to be set aside as a Visitors' Day at each of the five airdromes. One of each type of the planes in the Second Wing was flown to each field and set up for display during the afternoon. The pilot and crew of each airplane remained with the plane during the afternoon in order to answer questions, and great care was exercised to prevent any damage to the aircraft during the time the "Open House" prevailed.

While the greatest interest was, of course, centered in the giant four-engined Bombers, all the planes received their share of attention. At Tampa, the crowd was estimated at more than twenty thousand persons on Visitors' Day.

Both officers and men of the Wing were royally entertained by the civilian populace and city officials everywhere. At Tampa, especially, no effort was spared to make the period of the exercises as pleasant and as interesting as possible for all members of the Wing. At this city the officers stationed at Peter O. Knight Airport expressed their appreciation with a reception to city officials on the evening of Friday, March 25th.

At the conclusion of the period, it was felt by all hands that much had been accomplished to benefit the Second Wing, both as to development of the Air Defense of the country and in making friends for the Army among our civilian brothers.

Tactical Maneuvers and Gunnery Practice

The operations of the tactical units in the field extended from March 14th to March 29th, inclusive. On the 14th and 15th, units moved from their home bases into the Florida area. However, very bad weather held up a part of the movement until the 16th. The First Pursuit Group, moving from Selfridge Field, Mich., was forced down by storms at Huntsville, Ala. This unit made a very fine landing after dark at Huntsville without the use of flares or field lights.

Two members of the State Highway Patrol, hearing the planes circling above the town, summoned hundreds of private automobiles by radio to throw their lights on the tiny field. No personnel were injured or airplanes damaged in the landing, due to to the excellent air discipline of this organization.

Beginning Wednesday, March 16th, units which were established on their Florida airdromes began actual field training. The Pursuit units began daily firing on towed aerial targets and interception problems against Bombardment units of the Wing. By Thursday, all units had arrived and work began in full swing.

There being three types of tactical units in the Wing, the general method of operation was as follows: Reconnaissance squadrons were assigned the task of locating, photographing and reporting certain "enemy" ground and naval targets. On receipt of the radio reports from these patrolling planes, the Bombardment units took the air to destroy the invader. Having arrived at the ob-

(Continued on Page 4).

TRAVELING EXAMINING BOARD SECURES RESULTS

As a result of the experience of a special traveling board organized for the purpose of examining applicants for appointment as Flying Cadets, it would appear that a solution has been found to the problem with which the Air Corps was confronted in the past, when difficulty was encountered in securing a sufficient number of qualified young men to undergo flying training in the various entering classes at the Army Air Corps Training Center.

This special traveling board, consisting of Lieut. Colonel Coleridge L. Beaven, Medical Corps; Major Isaiah Davies and 1st Lieut. Robert F. Fulton, Air Corps, returned to the Training Center on April 13th, after visiting seventeen colleges and universities in the following States of the Seventh and Eighth Corps Areas, viz: Texas, Oklahoma, Arizona, New Mexico, Colorado, Kansas, Missouri, Iowa, Minnesota, North Dakota, Nebraska and Arkansas.

The board departed from the Training Center on February 14th, with the following missions in mind: First, to examine applicants for appointment as Flying Cadet; second, to disseminate information concerning the Training Center over as large an area as practicable. With this latter purpose in mind, the board prepared an itinerary prior to departure, which would cover a maximum territorial area within the two Corps Areas. All travel was performed in two BT-9 airplanes, and the original schedule was maintained throughout, the distance traveled being 5,150 miles.

The board examined a total of 746 applicants, and of this number 165 were found qualified and recommended for appointment as Flying Cadets. Of the total number found disqualified for appointment, 48% was due to eye defects, that is, visual acuity, color vision, muscular imbalance, etc.; 35% was due to defective vascular system, that is, high blood pressure, high pulse rate, etc. The remaining 17% were disqualified for miscellaneous reasons, such as defective teeth, weight, history, etc.

According to reports from this board, at no place was there evidenced any lack of interest in the Air Corps Training Center; and at many places visited all applicants could not be examined due to the necessity of maintaining the announced schedule of the board. It was the opinion of the board that the recent lack of applicants for appointment as Flying Cadets was an economic factor rather than personal desire, in that the individual could not afford the cost involved in traveling to the nearest Flying Cadet Board when, from information they had received from other applicants, only one out of each four or five examined would succeed in meeting the physical requirements.

It appears from the experience of this board that it is highly desirable to continue this method of obtaining candidates, as the examinations can be conducted without expense to the individual, thereby securing a larger qualified list to select from - which results in a higher standard of trainees being selected.

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The Second Wing Maneuvers in Florida

(Continued from Page).

jective, imaginary bombs were dropped and the Bombers proceeded on a little ways, where they dropped a mixture of oil and aluminum dust on the water to serve as a target for the actual bombing practice. On the return to the home airdrome, Pursuit units were called through the Intelligence Net to intercept and "destroy" the Bombers, the latter now representing the "enemy." Although the details such as times, routes, targets, and altitude were varied greatly from day to day, all missions performed were of this general type, with the exception of the final mission on Friday, March 25th.

On this day, all units effected a rendezvous over Tampa at nine in the morning and flew in formation over all the airdromes occupied by Wing units. It was a tough job for those pilots equipped with the newer and faster planes to stay in the same formation with the older and slower types. This mission lasted more than three hours and was conducted with all units maintaining the formation for the entire period, a grueling test of patience and concentration. More than 60 airplanes participated. Units were staggered upward from 3,000 to 7,000 feet, the lowest unit being the leading Ninth Bombardment Group.

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AIRMEN LUNCH WITH DENVER BUSINESS MEN

In response to an invitation extended by Mr. Stanley T. Wallbank, President of the Denver Chamber of Commerce, Lieut. Colonel Junius W. Jones, Commandant of the Air Corps Technical School, Denver Branch, and all officers on duty at the School attended the annual meeting of the Chamber of Commerce on April 11th.

The meeting was attended by civic officials of the State and city, including Governor Teller Ammons and Mayor Benjamin Stapleton, in addition to over 1,000 business men of the City of Denver.

In his address the President of the Chamber of Commerce stated that the City of Denver welcomed the Army Air Corps and its splendid branch of the Air Corps Technical School. Denver, he said, was most happy to number among its new arrivals the officers and enlisted men of the School.

MAXIMUM PERFORMANCE FROM AIR-SPEED TUBES

By an Equipment Branch Engineer,
Air Corps Materiel Division.

Recent experience in unsatisfactory reports has indicated that improved performance can be obtained in the indications of altimeters, air-speed indicators, and rate-of-climb indicators by a more thorough knowledge of the method of their operation and of their dependence on the air-speed tube, and by more careful maintenance and installation of the air-speed tube and the pitot-static instruments connected thereto.

As a result of extensive testing during the past year, the Types C-2 and C-3 air-speed tubes have been developed and are being procured for new airplanes. Electrically heated, these tubes are similar to those developed during the flight of the air mail by the Air Corps for the purpose of enabling pilots to fly successfully under icing conditions. The Types C-2 and C-3 tubes, however, represent a vast improvement over those original electrically heated tubes.

In 1934, 35 watts were used to deice the tube. In 1936, the value was increased to 55 watts. The problem of deicing was even more assiduously studied during the last year in an effort to get to the bottom of the unsatisfactory operation which was reported continually during the winter by pilots. The 55-watt tubes had icicles on them in flight and water froze in the lines aft of the heating element. Airplanes stalled with apparently safe air-speed indications.

Two refrigerated wind tunnels exist in this country: one is located at Langley field and the other at the plant of the B.F. Goodrich Company at Akron, Ohio. The latter has become the clearing house for information on icing conditions, having developed the deicers used today on the leading edges of wing and tail surfaces. In its willingness to cooperate with the Air Corps, it offered the use of its wind tunnel and engineers without cost for the purpose of testing any deicing devices or solution in order to aid in furthering development of the art.

The Air Corps took advantage of these facilities in testing the Types C-2 and C-3 air-speed tubes. The tests indicated that complete redesign of the Type C-1 tube was necessary.

Briefly, the tests demonstrated that tubes with less than 75 watts in the nose might take an infinite time to deice. On the other hand, a tube of 100 watts would deice in one minute or less in all cases. Increasing the wattage to 130 decreased to 30 seconds the time required to remove an ice cap 5/8-inch thick.

During these tests the most severe icing conditions were selected as a basis. These conditions involved the freezing of the tube and coating it in an 80 miles per hour wind with a cap of ice 5/8-inch thick. When this icing thickness was accomplished, the heating elements were put to work, and the time to clear and record air speed correctly was noted. One hundred watts was selected for the heating element in the nose of the Types C-2 and C-3 tubes. These tubes should be clear of ice in less than one minute.

This is a severe test because, as a rule, the air-speed tube heating element is turned on at the first indication of ice formation. Sometimes during the winter it is turned on before the airplane leaves the ground and is left on during flight. Drain traps have been incorporated in both tubes to secure maximum protection. A drain trap in each nose is supplemented with an additional drain trap in a shark fin or in a riser.

The Type C-2 air-speed tube is designed for mounting on a boom extending forward of the wing. This tube has a shark fin. Thus far no ice has formed on the booms. The Type C-3 air-speed tube is designed for mounting below the nose of the fuselage of multi-engine airplanes. A recess has been incorporated in the rear section of the tube to permit a deicer to be installed on the mounting mast and to extend down and around the tube.

Tests in Wright Field Wind Tunnel.

Tests to improve the aerodynamic characteristics of these tubes have also been run in the 5-ft. wind tunnel at Wright Field. As a result of the tests, the noses are now more pointed than round and the static slots have been replaced by static holes on the top and bottom.

Placing the holes on the top and bottom helps to effect a static pressure compensation under angles of pitch between -10° and $+16^{\circ}$. Maximum errors in the new air-speed tubes are as follows:

Maximum Error in straight flight between 50 and 225 m.p.h.

Air speed. 1.6 m.p.h.
Static pressure . . . 25 ft.altitude

Maximum Error in pitch between -10° and $+16^{\circ}$ at

Angle of Attack at 125 m.p.h.
Air speed 2.0 m.p.h.
Static pressure . . . 11 ft.altitude

There are three common faults in air-speed tube installations. The first and most important of these is a manufacturer's error in positioning the air-speed tube on the airplane. The manufacturer in his effort to decrease the weight of the airplane and to prevent spoiling of the air flow over the wing has, in the past, placed the tube close to the lead-

ing edge. In one YB-10 airplane this has given us an error in air speed of 17.0 m.p.h. The air-speed indicator read low by this amount constantly throughout the speed range.

In combination with this, a more serious error is probably the error in static pressure which introduced an error in the altimeter indication of as much as 230 feet at 182 m.p.h. This is a minus error and means that the pilot is flying 230 feet higher than his altimeter is reading. The air-speed tube was moved from the original position, 1½ feet forward of the leading edge of the wing to a position four feet forward; decreasing the errors in air-speed indication to less than 5 m.p.h., and in altitude indication to less than 25 feet throughout the speed range.

In the Y1A-18 airplane, the position errors of the air-speed tube are minus 22.5 m.p.h. at 230 m.p.h., decreasing to minus 10 m.p.h. error at 100 m.p.h. The altimeter is in error by minus 350 feet at 230 m.p.h., and minus 60 feet at 100 m.p.h.

The Materiel Division has undertaken the correction of several of the worst offenders in air-speed tube locations. For the Martin Bombers a 4-foot tapered mast is being installed in place of the old boom and, with this installation, throughout the speed range the error in air speed is less than 5 m.p.h., and the error in altimeter indication is less than 25 feet. At the present time the procurement specification requires that all new airplanes have air-speed tube installations with errors of not more than 5 m.p.h. and not more than 25 feet.

Leaks in Tubing Connections

The second common fault of installations is air leaks in the tubing connecting the air-speed tube to the altimeter, air speed indicator, and rate-of-climb indicator, or in case leaks in the instruments. Experience has shown that, if the static pressure line is subjected to a suction at the static slots or holes of the air-speed tube sufficient to cause the altimeter to increase its indication by 1,000 feet, and then this source of suction is pinched off, the altimeter should not change its indication by more than 150 feet in 10 seconds. If the leak is in excess of this value, the fluctuating pressure in the cockpit or in the wings will leak into the cases sufficiently to cause the pointers of all three instruments to oscillate undesirably. The remedy for leaks is a simple matter of tightening the connections and of sealing the cover glasses.

The third common fault of installations is that of an excessive voltage drop in the wiring between the battery or generator and the air-speed tube. When operated from a 12-volt battery, the voltage measured at the tube should not be less than 10.5. With the generator properly operating at 14.25 volts and the tube connected to it, the voltage as measured at the tube should not be less than 12.

It is believed that in the near future Air Corps pilots will be able to rely upon air-speed indicators, altimeters, and rate-of-climb indicators to within very small limits, at all times, and under all flying conditions.

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CHANUTE FIELD'S NEW REST CAMP

With another hot Illinois summer coming on, a group of officers at Chanute Field, Rantoul, Ill., decided to establish a rest camp principally for the enlisted men. After considerable investigation, they selected a twenty-acre park on the Illinois River, about 100 miles west of Chanute Field.

For a very reasonable sum, a lease was signed giving Chanute Field personnel the use of twenty acres of good high ground, a twenty-room hotel, an administration building (since converted to a sixty-man barracks), a mess hall seating one hundred people, and several small cottages. The location is a natural park, with an abundance of fine big oaks and well kept driveways.

For the convenience of the men, branches of the Chanute Field Post Exchange, General Mess, hospital and library have been established. A fund was raised by the subscription of one dollar per man, which not only pays for the year's lease but provides a goodly number of boats and outboard motors for fishing purposes - and the fishing is excellent!

Present plans call for the sending of detachments of eighty men or so every ten days to the camp until the entire garrison has had a brief but enjoyable vacation away from Chanute Field. "The townsfolk of Havana, a small town just a mile away, have given us their wholehearted support," says the News Letter Correspondent.

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PORTABLE PHOTOGRAPHIC LABORATORY

The Type A-1 portable photographic laboratory, which was used at Tampa, Fla., for carrying on the photographic work incidental to Corps Observation during the Second Wing Maneuvers in the last two weeks of March, was returned to the Materiel Division, Wright Field. No difficulty was experienced with this laboratory during its trip to and from Wright Field or while at its base in Florida. Several minor changes were recommended by the personnel using it, and these will be incorporated in the drawings prior to release for procurement.

The Type A-1A portable photographic laboratory, which is a modified Type A-1, has been tested by a sub-committee of

(Continued on Page 7).

PHOTOGRAPHERS WORK UNDER HIGH PRESSURE
By the Maxwell Field Correspondent

During the period from April 9th to 13th, the entire Photographic Section of Headquarters and Headquarters Squadron, Maxwell Field, Ala., consisting of Captain James G. Pratt, Photographic Officer, and 14 enlisted men, were pressed into almost continuous photographic missions for the Corps of Engineers, relief agencies and the press, during which approximately 1,200 miles of river basins were photographed with two multi-lens cameras. With all but three of the photographic personnel previously qualified in the use of multi-lens cameras during routine training, it was possible for frequent relief of photographers on such missions.

The regularly assigned Photographic plane was at the Fairfield Air Depot for overhaul at the time of this emergency and, therefore, two B-6 airplanes were placed at the disposal of the Photographic Section to carry out their missions. The loan of one T-3A camera by Barksdale Field, La., made it possible to place two photographic crews on the job during the entire time the flood waters were at their crest.

Approximately forty hours of photographic flying were accomplished in the four-day period. Eight loadings of T-3A multi-lens film were exposed, resulting in approximately 23,000 prints for delivery to the Corps of Engineers. The T-3A camera operated throughout the entire period without failure. Approximately six months will be required for the completion of the printing and the mounting of the photographs.

To gather a rough idea of some of the territory covered during the above period, you may dig out your map of the deep South and trace these river basins: the Coosa River, from Rome, Ga., to Wetumpka, Ala.; the Alabama River from Wetumpka to Mobile, Ala.; the Pearl River from Edinburg to Bogalusa, Miss.; the Chickasawhay from Merrill to Meridian, Miss.; the Black Warrior River from Littleton to Demopolis, Ala., and the Tombigbee from Demopolis to Mobile, Ala.

In addition to the above mentioned photographs with the multi-lens cameras, approximately 400 oblique photographs were taken of the flood areas with the single lens cameras for the Corps of Engineers, relief agencies and the press.

When you try to sum up an estimate of the photographic hours covered in a mission and then add your tiring hours of laboratory work which follows such missions, embracing an average daily production of 350 prints in addition to the regular daily work of the Section, then you have something. But we must add that it was a big mission, well done, which has always been one of the mottos of the present Photographic Section, formerly the 4th Photo Section. So the remainder of us here in other departments render the Photographic Section a salute in recognition of a mission well done. May you always carry on the splendid work, with the good spirit in which it has always been done in the past.

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WRIGHT FIELD PLAYS HOST TO FUTURE FLYING CADETS

Realizing that the selection of future material for training of Cadets at the Air Corps Training Center is one of the most important tasks in the Air Corps, the Flying Cadet Board of Officers at the Air Corps Materiel Division, Wright Field, Dayton, Ohio, took time out from a busy routine of evaluations, contracts, engineering, and supply matters to give some one hundred boys the once-over, both physically and mentally. The avalanche descended upon the front gate promptly at 8:00 a.m., on Tuesday, April 12th, and final details were not completed until Saturday, April 16th.

Wright and Patterson Fields combined their staffs of Flight Surgeons to give the physical examinations and, thanks to Major Madarasz, the boys when not being actually examined were entertained by reels of movies showing Air Corps history, military flying, etc. A Cook's Tour of the hangar line was made, and some of America's future hopefuls got a chance to see the latest planes undergoing tests preliminary to acceptance by the Air Corps.

The episode, of course, was not without its humor. One chap, when asked to give an example of a declarative sentence, during the written examination, wrote: "I thought for a while I might be able to pass this examination."

Here's hoping he does pass and some day graduates from the Flying School - cum laude.

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Portable Photographic Laboratory
(Continued from Page 6)

the Air Corps Technical Committee and recommended for standardization with minor changes. These changes have been incorporated in the drawings and the specification, which have been released to the Office, Chief of the Air Corps, for approval, so that a quantity can be procured during the present fiscal year for use by the Air Corps activities of the GHQ Air Force and the National Guard units.

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Sergeant Alex Westbrook, of the 21st Reconnaissance Squadron, GHQ Air Force, was placed on the retired list at Langley Field, Va., April 30, 1938.

ARMY DAY EXERCISES AT KELLY FIELD

On the morning of April 6th, the students of the Air Corps Advanced Flying School, Kelly Field, Texas, attended a demonstration by the Second Division, held at Arthur MacArthur Field, Fort Sam Houston, Texas. In the afternoon, commencing at 2:00 p.m., a program was given at Kelly Field, to which the public was invited. This program included inspection of airplanes on the line, blind landing demonstration, student flying (Pursuit and Attack sections), inspection of the Miniature Range, Link Trainer demonstration, and a description over a public address system of the airplanes displayed, as well as a description of the blind landing method while the demonstration was in progress.

The instrument landing demonstration was as follows: 1st Lieut. John H.Bundy, Air Corps, with a safety pilot, took off under the hood in a BT-2 airplane. After making the prescribed pattern, he came into the field for a perfect instrument landing. He then tuned in on Kelly Field's third instrument truck which had been set up on exhibition in front of Post Operations Office, and taxied in, using the radio compass until he reached the ramp before he opened the hood. The large crowd present applauded, and "Hal" blushed but would not stand up and take a bow. The entire instrument landing system was excellently explained over a public address system during the demonstration by 2nd Lieut. William Eades, Air Reserve. The large crowd present showed considerable interest in this demonstration, and favorable publicity appeared in the local press.

Lieut. Bundy is in charge of instrument landing instruction at the Air Corps Advanced Flying School. He qualified last fall at Wright Field, Dayton, Ohio. Captain C.B. McAllister, who recently reported at Kelly Field, also qualified at Wright Field.

The officers who have recently qualified at Kelly Field, Texas, are Captain W.G. Bryte, 1st Lieut. S.E. Anderson and 2nd Lieut. M.F. Stalder. Others who are undergoing this instruction in airplanes include Major C.E. Crumrine, 1st Lieuts. C.H. Pottenger, D.S. Campbell, and 2nd Lieut. W. Eades. Numerous others have been working on the Link Trainer.

Instrument landing instruction is progressing slowly but surely at Kelly Field, the difficulty being in obtaining the use of the airdrome, as the present larger student classes usually necessitate flying instruction being given all day.

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Lieut. Colonel Howard J. Houghland and Major Merrick G. Estabrook, Jr., who held temporary commissions in their respective grades, were given permanent appointments to such grades, with rank from April 1, 1938.

MAXWELL FIELD ALMOST ESCAPES FLOOD

Water, water, everywhere and all too muddy to drink, seemed to be the talk around Maxwell Field, Ala., from about the 8th until the 11th of April. The exceedingly heavy rains around this section and farther north caused the Alabama, Coosa and Tallapoosa Rivers to go on a rampage and inflict considerable damage throughout this section and between Maxwell Field and the coast, but thanks to the Alabama Power Company with its locks at Jordan and Mitchell Dams, which held back the waters from above to a great extent, and distributing it through its gates after it began receding below, the high peak at the Air Corps station only reached 54 feet. The all-time high peak of 60 feet occurred during the big flood of 1896, and everyone was glad to hear that the peak this time was some six feet lower, for Maxwell Field was beginning to show the effects of the muddy waters on both the lower side of the flying field and the Ordnance Magazine area, as well as the Officers' quarters in the area nearest the Alabama River. Several of the Ordnance Magazines were completely surrounded by water, necessitating the removal of ammunition to higher grounds and placing it under guard for several days.

About nine holes of the beautiful golf course could only be reached by a deep sea diver, as the water on that part of the golf course was under at least 15 or 20 feet of water.

Captain Pratt, of the Headquarters and Headquarters Squadron, Air Corps Tactical School, the Photographic Officer, with his entire Section were pressed into service. Working both day and night, photographs were taken of the high water areas in Alabama and adjoining States, and from Maxwell Field to the coast. Just how many square miles were covered in this photographic project is not known, but it will run into high figures.

The supply of water to the post and the City of Montgomery was threatened but, fortunately, the flood stage did not quite reach the water supply plant. All squadrons, however, were warned to fill all possible empty containers with water, including the bath tubs, for reserve in case the water plant was flooded out.

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Technical Sergeant Max Simon, of the 13th Air Base Squadron, Maxwell Field, Ala., is the latest old-timer who completed thirty years of honorable service with the U.S. Army. April 30th brought to a close his army career. Sergeant Simon joined the U.S. Army on November 7, 1908. He has received nine honorable discharge certificates, all bearing the notation: "Character: Excellent."

V-7714, A.C.

ECHOES FROM THE FLORIDA MANEUVERS
By the Langley Field Correspondent

2nd Bombardment Group:

On March 14, 1938, the 2nd Bombardment Group arrived in Orlando for two weeks of cooperative maneuvers with the latest type Pursuit from Selfridge Field, Mich.

Stepping into the middle of summer from the chilly spring weather of Langley Field, the officers adjusted themselves easily to the warm hospitality of this attractive southern city. For two weeks the 2nd Group and the people of Orlando interwove their friendships until it was with deep regret that the ships took off for home on the 29th of March.

The officers of the 2nd Group are now members of all the notorious organizations in Florida. Without disclosing all, suffice it to say, we are Panthers, Flying Alligators, etc.

The 96th Bombardment Squadron climaxed the Florida maneuvers by participating in an aerial review of the 2nd Wing, flying over Tampa, St. Petersburg, Sarasota, Lakeland, Orlando, Daytona Beach and Jacksonville. On March 28th, three of our B-17's assisted the 2nd Bombardment Group in ferrying to Selfridge Field, Mich., 111 enlisted men from Tampa air base of the 1st Pursuit Group. These same planes returned to Orlando the next morning to ferry our own combat echelon home.

March 14th to March 30th, the 20th Bombardment Squadron was in the field with the 2nd Bombardment Group as part of the 2nd Wing Maneuvers. The entire Group was stationed at Orlando, Florida. Due to the shortage of officer personnel, it was not practicable to operate as three individual squadrons, and it was decided to attach the 49th and 96th Squadrons to the 20th, so that the staffs of the former would be available for flying. Before and after the maneuvers, the B-17's were used as transports to ferry Selfridge Field personnel to and from Tampa, Florida. No per diem money was available for the maneuvers and consequently the ferry crews would have had considerable expense had it not been for the fact that Selfridge Field officers were kind enough to put them up in their own homes.

8th Pursuit Group:

Our "Sun Tanned Warriors" (35th Pursuit Squadron) who returned from the Florida maneuvers have achieved an enviable record in aerial combat, and it comes by good authority to your humble correspondent that all phases of ground operations were given due consideration. Those who remained at Langley during the maneuvers continued and qualified in 440-40.

Since the 2nd Wing Maneuvers, the 36th pilots have been busy getting in the required instrument and night time. Night flying has been the order on all nights that the weather permitted. Also, the crew chiefs and assistants have all been busy pulling 40's and otherwise cleaning up after the two weeks epent in Florida. It was a swell job they did down there, so Sgt. Nero and all the men are due congratulations.

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THE JOINT ARMY-NAVY MANEUVERS IN HAWAII
By the Luke Field Correspondent

5th Bombardment Group:

The annual period of maneuvers for the Hawaiian Department has just closed, and all hands are reassembling their wits, strength and multitudinous loose ends. The Group participated in recent Navy Exercises and gained much valuable information as to its problems inherent in the defense mission in the islands. Weather conditions were unusually poor during the period, but no casualties were suffered during the "war."

During the latter part of March, the 23rd Bombardment Squadron served in a dual capacity. Many of its members were assigned to other squadrons to participate in the Group's activities during the maneuvers, while the rest of the Squadron were busy assembling the B-18's which arrived on the Transport MEIGS late in the month. The maintenance crew has been working early and late getting these ships ready to fly, and on March 31st the first two were given their flight test, with Major Harris, supervising the assembly of these ships, at the controls. Major Beaton, the Commanding Officer of the 23rd, was co-pilot on both of these test flights. The remaining airplanes were scheduled to be given their flight test on April 1st or 2nd. With this modern equipment, the Squadron expects to maintain a high degree of efficiency in all phases of its training.

The 50th Reconnaissance Squadron participated in the joint maneuvers with the Navy from noon on March 25th until the evening of March 30th. We were constantly on the alert during the hours from 4:00 a.m. until dark each night. Each morning at 4:30 a.m., saw us in the air. March 26th was the only exception to this schedule, and on this date we sat on the ground for the entire 24 hours. March 27th was another easy day, with only two hours and 20 minutes in the air for the entire Squadron. However, the other four days of the exercises saw plenty of action, and we were all glad when the exercise ended.

The 72nd Bombardment Squadron, with

(Continued on Page 10).

BAND MUSIC THROUGH PUBLIC ADDRESS SYSTEM

The absence of bands at Air Corps stations need no longer apply at Randolph Field, according to the News Letter Correspondent. He states that through the installation of a public address system in the Cadet Administration Building, it is now possible to hear the latest band music several times weekly as the cadets drill to the stirring marches of the nation's best military bands.

The installation, to be used primarily in assisting flying cadets with two left feet to march in step with their brother flying cadets, consists of a pick-up amplifier unit in the office of the Cadet Officer of the Day, connected with four loud speakers; two mounted at the northwest corner and two at the northeast corner of the Cadet Administration Building. The volume is sufficient to enable groups drilling at the farthest point on the drill field to hear the music without difficulty despite the constant droning of airplane engines or the direction of the wind.

In addition to drill, it is contemplated to use the system for sounding calls, and with the installation of a microphone, orders will be published by loud speaker. In an emergency the system will afford rapid communication directly from the Cadet Administration Building.

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NEWSPAPER MEN VISIT MARCH FIELD

A group of newspaper men from various eastern newspapers and aviation magazines visited March Field, Riverside, Calif., on April 2nd, and inspected the latest in military aircraft and equipment as guests of Brigadier General Delos C. Emmons, Commanding General of the 1st Wing, GHQ Air Force, and Lieut. Colonel Carlyle H. Wash, Commanding Officer of March Field. The guests arrived aboard a TWA transport from the Burbank Airport at 10:00 a.m.

The visitors were conducted on a tour of inspection of the field by Major Early E.W. Duncan, Public Relations Officer of March Field, and were shown bombs and ordnance equipment, parachutes and the latest type Attack and Bombardment airplanes.

For several days the members of the group were the guests of Paramount Studios, watching the filming of "Men With Wings." They left March Field at noon for Clover Field, Santa Monica, Calif., where they inspected the new DC-4 giant transport recently completed at the Douglas aircraft plant. Upon the completion of their inspection, Don Douglas, President of the Douglas Aircraft Corporation, was host to the group at a luncheon.

In the party were Edward P. Flynn, New York POST; Gerald Duncan, New York DAILY NEWS; Wayne Thomas, Chicago TRIBUNE; Maurice Roddy, Chicago DAILY TIMES; Lyle A. Brookover, AMERICAN AVIATION, Washington; Don Rose, Philadelphia LEDGER; Julius Frandsen, UNITED PRESS, New York; Paul Frederickson, New York TIMES; Garet Cate, New York WORLD-TELEGRAM; W.E. Locher, Pittsburgh SUN-TELEGRAPH; G.F. McLoughlin, AERO DIGEST, New York; Henry H. Ward, Pittsburgh PRESS; H.N. Beck, Chicago AMERICAN; Dick Kirschbaum, Newark EVENING NEWS; C.B. Colby, AIR TRAILS, New York; C.M. Sievert, New York WORLD-TELEGRAM; Avery McBee, Baltimore SUN; Tom Compere, New York HERALD-TRIBUNE; Andy Kelly, TWA representative; Dan Sayer, AVIATION, New York; Alice Kappeneman, Burbank, air transport hostess.

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A PHOTO LABORATORY IN A CELLAR

Staff Sergeant R.M. Bishop, who completed the course in aerial photography at the Air Corps Technical School at Chanute Field, Rantoul, Ill., came to Moffett Field, Calif., on June 20, 1937, and immediately organized a Photo Section.

Picking out the cellar in the Administration Building as the most likely place for the activities of the Section, Sergeant Bishop drew plans for power lines, drains, dark rooms, developing rooms, storage and sundry things that go to make up a photo section or laboratory and, after the approval of Major Bushrod Hoppin, Air Corps, Commanding Officer of the 82nd Observation Squadron, the Quartermaster Utilities took his plans and went to work on them.

Today that cellar houses a fully equipped Photo Laboratory, with a personnel of eight men, four of whom are graduates of the Air Corps Technical School.

With K3B cameras, they have photographed all the landing fields in California and part of Nevada, covering an area of approximately 130 square miles with mosaics, obliques and verticals. They are now engaged in topographical mapping of 1,000 square miles.

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Joint Maneuvers in Hawaii (From Page 9).

two flights attached from the 4th and 50th Reconnaissance Squadrons just finished taking part in the recent maneuvers. A provisional Bombardment Squadron was organized with four airplanes in each flight, and one extra for the Squadron Commander, making a total of 13 airplanes.

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The designation of the 5th Composite Group, Luke Field, T.H., was changed to the "5th Bombardment Group." "Since its major mission is that of Bombardment," says the News Letter Correspondent, "the change was appropriate."

AIR MANEUVERS IN NORTHEASTERN STATES

The War Department recently announced its approval of plans for the concentration and maneuvers of the General Headquarters Air Force during the month of May. Participating in these maneuvers will be 468 officers and 2380 enlisted men, utilizing 131 airplanes. This force will move from its various bases throughout the country during the period from May 1st to 11th, to gather on various airdromes in the Northeastern States.

From May 12th to 17th, inclusive, intensive training will be held, with all units of the Air Force participating. The remainder of the month will be taken up with Command Post Exercises, staff training and critiques, and the movement of units from their temporary airdromes back to their home bases.

The 131 airplanes to be employed in these maneuvers are enumerated by types, as follows: 14 A-17's, 30 A-17A's and 12 A-18 Attack planes; 8 B-17 and 34 B-18 Bombardment planes; 15 each of PB-2 and P-26 Pursuit planes; 2 C-36 Cargo planes and one OA-8 Amphibian plane.

The dispositions of the participating GHQ Air Force units for the period of the Exercises will be as follows:

1st Wing Headquarters, GHQ Air Force, 24 officers, 110 enlisted men, 1 C-36, 1 B-18 and 5 A-17's from March Field, Riverside, Calif., to New Haven, Conn.

19th Bombardment Group Headquarters, 20 officers, 118 enlisted men, 5 B-18's, from March Field to Schenectady, N.Y.

30th Bombardment Squadron, 31 officers, 115 enlisted men, 5 B-18's, from March Field to Albany, N.Y.

17th Attack Group Headquarters, 20 officers, 98 enlisted men, 5 A-17A's, from March Field, to Groton, Conn.

95th Attack Squadron, 20 officers, 105 enlisted men, 10 A-17A's, from March Field, to Rentschler Field, Hartford, Conn.

7th Bombardment Group, 20 officers, 118 enlisted men, 5 B-18's, from Hamilton Field, Calif., to Westfield, Mass.

9th Bombardment Squadron, 31 officers, 115 enlisted men, 5 B-18's, from Hamilton Field, Calif., to Brainard Field, Hartford, Conn.

2nd Wing Headquarters, GHQ Air Force, 25 officers, 148 enlisted men, 1 C-36, 1 B-18 and 4 A-17's, from Langley Field, Va., to Middletown, Pa.

2nd Bombardment Group, 21 officers, 156 enlisted men, 3 B-18's, from Langley Field, to Phillips Field, Aberdeen Proving Ground, Md.

49th Bombardment Squadron, 42 officers, 239 enlisted men, 8 B-17's, from Langley Field, to Harrisburg, Pa.

3rd Attack Group Headquarters, 20 officers, 98 enlisted men, 5 A-17A's, from Barksdale Field, Shreveport, La., to Camden, N.J.

13th Attack Squadron, 20 officers, 105 enlisted men, 10 A-17A's, from Barksdale Field, to Allentown, Pa.

8th Attack Squadron, 20 officers, 130 enlisted men, 12 A-18's, from Barksdale Field, to Lancaster, Pa.

18th Reconnaissance Squadron, 49 officers, 181 enlisted men, 9 B-18's and 1 OA-8, from Mitchel Field, N.Y., to remain at that station.

3rd Wing Headquarters, GHQ Air Force, 25 officers, 110 enlisted men, 5 A-17's, from Barksdale Field, La., to Mitchel Field, N.Y.

8th Pursuit Group Headquarters, 20 officers, 136 enlisted men, 5 PB-2's, from Langley Field, Va., to Miller Field, New Dorp, N.Y.

36th Pursuit Squadron, 20 officers, 108 enlisted men, 10 PB-2's, from Langley Field, to Seversky Field, Farmingdale, L.I., New York.

20th Pursuit Group Headquarters, 20 officers, 95 enlisted men, 5 P-26's, from Barksdale Field, to Roosevelt Field, L.I., New York.

55th Pursuit Squadron, 20 officers, 95 enlisted men, 10 P-26's, from Barksdale Field, to Floyd Bennett Airport, L.I., New York.

The First Wing of the GHQ Air Force will be commanded by Brigadier General Delos C. Emmons, Air Corps; the Second Wing by Brigadier General Arnold N. Krogstad, Air Corps, and the Third Wing by Brigadier General Frederick L. Martin, Air Corps.

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DROPPING HOT FOOD TO DOUGHBOYS

On March 25, 1938, the 18th Pursuit Group, Wheeler Field, T.H., was ordered to drop six aerial delivery containers with food to a detached post of the 2nd Battalion, 21st Infantry, Northwest of Puuiki at Coordinate 85.2 - 02.2. The containers were to be dropped upon the display of green signal flares by ground units.

This exercise proved valuable training for air and ground units, and demonstrates that food and water can be delivered to lost or marooned parties.

Here is how a Honolulu newspaper described this incident:

"Six swift warbirds of the Air Corps Twenty-sixth Attack Squadron soared high above a detachment of advancing doughboys in the rugged country northwest of Puuiki yesterday to drop containers of hot food by parachutes to the weary infantrymen in one of the most spectacular combat tests staged during the army's current war games.

With each plane having one of the heavy food containers aboard, the battle squadron took off from Wheeler Field at 5 p.m. to drop their big 'dinner buckets' to a party of approximately 40 men

(Continued on Page 12).

REDESIGNATION OF THE 75TH SERVICE SQUADRON
By Private 1st Cl. Joseph A. Mesaris

On March 1, 1938, in compliance with orders issued by the War Department, the 75th Service Squadron, Air Corps, stationed at Wheeler Field, Schofield Barracks, T.H., was redesignated "Base Headquarters and 18th Air Base Squadron, Air Corps."

During the twenty odd years of its life, this Squadron probably has witnessed more changes and redesignations than any other organization in the Army of the same age.

Originally organized at Waco, Texas, on January 22, 1917, as the 75th Aero Service Squadron, it was transferred en masse to Gerstner Field, Lake Charles, La., on March 1st of the same year and, four months later, on July 15, 1917, it was redesignated "Squadron 'E' Gerstner Field." This redesignation, however, barely had time to become known officially when, eight days later, it was again redesignated, this time as "Squadron 'D,' Gerstner Field."

The newly baptized Squadron "D" immediately adopted several tiny orphan organizations, with the result that it soon multiplied its authorized strength tenfold, so that on August 14, 1917, sufficient officers and men were extracted from the organization to form the 487th Aero Squadron at Kelly Field, Texas, under the command of Captain Scott, who retained command of the Squadron until a few days prior to its entraining, on October 27, 1917, for the Concentration Camp at Garden City, Long Island, New York, when he was relieved by Captain Edward K. Jones, the latter staying with the organization until it was settled in France.

On December 4, 1917, the Squadron boarded the S.S. NORTHLAND and set sail for Halifax, N.S., where it remained until December 15th, when the officers and men once more "hit the high seas."

Ten days later, Christmas Day, anchor was dropped in the harbor of Liverpool, England. From Liverpool the Squadron pushed onward, by means of rail and water transportation, to Southampton, Le Havre, St. Maxient, and finally Romorantun-et-cher. It was at this last stop that the greatest production center for the assembling and testing of planes was concentrated after construction was completed by the then 487th Construction Squadron, then under the command of Captain William A. Campbell. Several interesting volumes have been written of the experiences of the officers and men while enroute to and during their encampment at Romorantun-Loire-et-cher.

Shortly after the war, and while praises were still ringing in the ears of its members, the 487th was demobilized and reconstituted and consolidated with the 75th Aero Service Squadron, which was later constituted an inactive unit on October 18, 1927. It was redesignated 75th Service Squadron, Air Corps, on May 8, 1929, and made active on September 15, 1930, at which time it became part of the 18th Pursuit Group at Wheeler Field, T.H.

Now, after an all time record of eight years without change, the 487th, or the 75th Aero Service Squadron or, still, Squadrons "E" or "D," Gerstner Field, is again redesignated - "Base Headquarters and 18th Air Base Squadron, Air Corps." But the passing years, or the various redesignations to keep in tune with modern times and military customs, can never take from those who served with the organization, under whatever name you wish, either as charter members or adopted children, the fond memory of the undeniable pride in having been a part of the organization whose outstanding record, both in peace and war, speaks for itself.

Ed. Note: The author of this article, a member of the organization whose history he has briefly recorded, is also responsible for the cover design with its Hawaiian atmosphere and the insignia of the Base Headquarters and 18th Air Base Squadron, featuring this issue of the Air Corps News Letter. Private Mesaris sketched the design on a mimeograph stencil. In extending our thanks to him, we hope to hear from him again soon.

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Dropping Hot Food (From Page 11).

of the 2nd battalion, 21st Infantry, 30 minutes later. They then returned to their Wheeler Field base.

Lt. Frank F. Everest led the planes on this mission. * * * As the fast ships located the advancing Infantrymen far below, they let go their containers filled with hot food. The parachutes snapped open after a dizzy plunge, floating the welcome rations gently to the ground. An entire six-course dinner including soup, bread and meat, was thereby swiftly delivered to the men at the front.

Just as fast was the work of the photographic plane which filmed the operation. Flown by Lt. James Olive, with Staff Sgt. Marvin Williams handling the camera, pictures were taken of the food containers floating to the ground, of the infantrymen sampling the contents, and of the fast attack ships in action, rushed back to Wheeler Field, developed and printed within an hour."

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Major Lotha A. Smith, Instructor at the Air Corps Tactical School, Maxwell Field, Ala., is under orders to proceed to Hamilton Field, Calif., for duty.

TRAINING ARMY AIRMEN TO FLY AUTOGIRO

By the Materiel Division Correspondent

Before many months will have passed, it is anticipated that six new autogiros will be on the flying line at Patterson Field, Fairfield, Ohio, for the purpose of training Air Corps pilots and mechanics in flight and maintenance of this type of aircraft.

For some years the Materiel Division at Wright Field has been studying and conducting experimental tests on this type of equipment. Recently the experimental model at Wright Field passed acceptance tests and is now Air Corps property. As a result of orders placed for six additional autogiros of the same type and model, three are now ready for delivery to the Air Corps and three more will be ready for delivery by May 16th.

Present plans are to transfer the experimental model now at Wright Field to Patterson Field to form one of a fleet of autogiros to be used for training purposes. The first of the six new autogiros will be delivered to the National Advisory Committee for Aeronautics at Langley Field, Va., for further research and experimental purposes. The remaining five will join the one from Wright Field at Patterson Field.

The first class of students, who will be drawn from the various Air Corps fields, will consist of four officers and five mechanics. This class, scheduled to start about April 18th, will offer a six weeks' training course. A second class, also of six weeks' duration and to follow immediately, will consist of five student pilots and four mechanics, so that at the completion of training of the second class, the Air Corps will have a total of twelve autogiro officer pilots and twelve mechanics skilled in autogiro maintenance and operation problems, including the three officer pilot instructors and three mechanics previously trained.

These autogiro classes will be conducted under the direction of Lieut. Colonel Junius H. Houghton, of Patterson Field, who will serve as Commandant. The instructors will be Lieuts. H.F. Gregory, E.S. Nichols and G.H. Snyder, all of the Air Corps.

When the two classes are completed, it is planned to send the autogiros to various stations for further service testing to determine their value as used in cooperation with ground forces of the Army. Previous service testing with the type now at Wright Field has included work with the Coast Artillery Board and School, Fort Monroe, Va.; Infantry Board and School, Fort Benning, Ga.; Field Artillery Board at Fort Bragg, N.C.; Field Artillery School at Fort Sill, Okla.; Cavalry Board and School at Fort Riley, Kansas, and with the Mechanized Cavalry Brigade at Fort Knox, Ky.

PURSUITERS CONTINUALLY ON THE GO

"In just a few more weeks now," wrote the News Letter Correspondent of the Base Headquarters and 3rd Air Base Squadron recently, "we hope to have gathered everyone back from the Everglades - so they can kiss their wives goodbye and get off to the GHQ Maneuvers in New York. Though at least fifty percent of the fellows have been threatened with divorce during the late Florida exercises of the Second Wing, wives and children have now been lulled into a cataleptic state of just not giving a hoot whether their men folk stay at home or not. Some of them have even called attention to rejected proposals from Naval officers, stating that they might have been assured of at least fifty percent of their husbands' manly presence.

"From the latest indications there will be about three officers left here at Selfridge during the May maneuvers. Much practice in the art of bag-holding and weather flights is anticipated for the three stay-at-homes. However, survivors of the late Maneuvers of 1938 claim their budgets won't stand much more strain.

"There are at the present time a larger number of officers here for duty than at any time since the World War, and many are wondering when they will get something to fly. Most of the officers are Reserves, of course, but the flying is a real problem. The last of our well-loved and well-worn P-26's left for Barksdale Field yesterday, and all P-6's are leaving at any moment. The Seversky's are restricted to local flights pending a minor change in the engines, and there are only twenty-one of them in commission anyway. . . . Oh, well!"

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ASSIGNMENT OF C. & G.S. SCHOOL GRADUATES

Special Orders of the War Department, recently issued, direct that the following-named Air Corps officers, effective upon the completion of their present course of instruction at the Command and General Staff School, Fort Leavenworth, Kansas, proceed to the Air Corps stations indicated after their names for assignment to duty:

Major Ral L. Owens to Hamilton Field, Calif.

Captain James F. Bevans to Mitchel Field, N.Y.

Captain John R. Hawkins to Selfridge Field, Mich.

Captains Edmund C. Lynch and Willard R. Wolfinbarger to Langley Field, Va.

Captain Earle E. Partridge to Maxwell Field, Alabama.

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ACTIVITIES AT HICKAM FIELD

The first week in March saw signs of great activity around the hangar of the 23rd Bombardment Squadron, Luke Field, Hawaii. With the transfer of all the offices of this organization to Hickam Field, all equipment and supplies were loaded into trucks and moved to that new station. All of the B-12A airplanes of the 23rd Squadron were assigned to the two Observation squadrons, and the full time of the personnel of the 23rd was devoted to becoming established in their new location. "At Hickam Field," says the News Letter Correspondent, "we again became pioneers, but after a few hectic days managed to get set up in normal style."

Maintenance crews from the 23rd have been working with the 31st Bombardment Squadron, since the arrival in Hawaii of this organization from Hamilton Field, Calif.

"We are getting acquainted with the new B-18's," continues our Correspondent, "so that when our ships arrive we won't be completely at sea. From all indications the transition period for pilots and maintenance crews will be an interesting one, and we are all looking forward to the day when our quota of ships arrive."

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CHINA SEA TO OREGON COAST IN TWO YEARS

The Randolph Field Correspondent forwarded to us a photostatic copy of a message, as follows:

"At sea on board U.S. Army Transport Grant July 31, 1936.
Margaret Ann Hastey
Tommy Hastey Jr.
Randolph Field, Texas."

Almost two years later this message reached Randolph Field, with an inquiry added thereon, as follows:

"This note was found in a bottle on Wi-Ne-Ma Beach, located in South Tillamook county, Oregon, March 28th, 1938. We were wondering where it was cast into the water as it took so long to drift in.

Very truly yours,
Evelyn Steppa
Oretown, Oregon."

The message was placed in a bottle and dropped in the China Sea by Lieut. Colonel Thomas W. Hastey, Air Corps, for his two children, when he and his family were returning to the United States following the completion of his tour of duty in the Philippines.

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During March, the Engineering Department of the San Antonio Air Depot, Duncan Field, Texas, overhauled 20 airplanes and 54 engines and repaired 56 airplanes and 19 engines.

FLYING TRAINING ON THE AUTOGIRO

Supplementing the article on the above subject, which appears on page 13 of this issue of the News Letter, later information thereon was submitted by the Materiel Division Correspondent, as follows:

On Wednesday morning, April 20th, students and instructors assembled at Patterson Field, Fairfield, Ohio, for opening classes of the first school to be held in this country for military flight training and maintenance of the autogiro. On the flying line were three autogiros being warmed up for flight, and this incident also savored of the historic, for it was believed to be the first time for three of this type of aircraft to be assembled for simultaneous flight. It was expected that delivery of the fourth autogiro of six would be made on April 21st, and the final two of the fleet shortly thereafter.

The pilot's course in flight of the autogiro will cover complete mastery of autogiro flight technique, including 250 hours in the air for each student. The maintenance course for crew chiefs will cover instruction in pre-flight and 40-hour inspection, and all problems of adjustment and upkeep.

The commandant of this autogiro school is the Commanding Officer of Patterson Field, Lieut. Colonel Junius H. Houghton. The instructors are Lieuts. H.F. Gregory, Officer in Charge; E.S. Nichols, Training and Operations, and G.H. Snyder, Engineering and Supply.

The officers reporting for flight training are Lieuts. P.E. Gabel, of Mitchel Field, N.Y.; J.D. Rutledge, Moffett Field, Calif.; James Van Q. Wilson, Scott Field, Ill., and F.P. Hunter, Jr., Pope Field, N.C. The enlisted men reporting for the maintenance course are Privates R.J. Sorenson, of Fort Sill, Okla.; R.G. Franks, Fort Benning, Ga.; F.M. White, Scott Field, Ill.; L.M. Clingler, Chanute Field, Ill., and F.O. Mallinson,

The instructors of this latter course are Corporal J.M. Teten and Private F.O. Sill, of Langley Field, Va., and Private Jack Felt, of Fort Sill, Okla.

Lieut. Gregory received his autogiro flight training at Langley Field with the National Advisory Committee for Aeronautics about two years ago. He and Lieut. Nichols for the first time in history accomplished telephone communication between heavier-than-air craft and the ground, the heavier-than-air craft used being an autogiro.

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Effective May 1, 1938, Captain John M. Sterling, Air Corps, was relieved from duty at Selfridge Field, Mich., and assigned to the American Embassy, Paris, France, for duty as Assistant Military Attache for Air to France and Belgium.

O B I T U A R Y

Second Lieutenant Robert B. Hubbard, Air Corps (Infantry), met his death on April 14th as the result of an airplane crash. He was flying a BT-9 one-half mile north of Kreuger Field, Texas, when the airplane, from causes undetermined, spun into the ground.

Lieut. Hubbard, a resident of New York City, graduated from the United States Military Academy, West Point, N.Y., on June 12, 1937, and was commissioned a second lieutenant of Infantry. Upon his application he was assigned as student to undergo flying training at the Air Corps Training Center. He commenced training with the October, 1937, class at Randolph Field.

Accidents are always tragic, but when death strikes one so young and so soon after graduation from the Military Academy, and on the threshold of his new career, it seems doubly so. The Air Corps sends its profound sympathy to the bereaved relatives of the deceased young officer.

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RESERVE OFFICERS COMPETE FOR REGULAR COMMISSIONS

Under the provisions of the Thomason Act (H.R. 6250, 74th Congress, approved August 30, 1935), approximately 50 Air Reserve officers recently took the examination for appointment as second lieutenant in the Air Corps, Regular Army.

The Act above referred to provides that for a period of ten years, beginning July 1, 1936, the Secretary of War is authorized to select annually, in addition to the graduates from the United States Military Academy, fifty Reserve officers who shall be commissioned in the Regular Army, the Secretary of War to determine for each annual increment the number to be allotted among the promotion list branches of the Army.

According to the latest information obtainable, the tentative allotment to the Army Air Corps out of the increment of fifty new officers to be added to the Army for the next fiscal year, under the Thomason Act, is eight. It would seem, therefore, that only 16% of the 50 Air Reserve officers who took the competitive examination for a permanent commission are likely to realize their ambition.

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Three Air Corps officers, now pursuing courses of instruction at civilian technical schools, are under orders for duty at the Air Corps Materiel Division, Wright Field, Dayton, Ohio, upon the completion of such courses. These officers and the institutions they are now attending as students are as follows:

1st Lieut. Frederick R. Dent, Jr., Massachusetts Institute of Technology, Cambridge, Mass.

1st Lieut. Donald J. Kiern, University of Michigan, Ann Arbor, Mich.

1st Lieut. Donald L. Putt, California Institute of Technology, Pasadena, Calif.

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WAR DEPARTMENT ORDERS

Changes of Station

To Maxwell Field, Ala.: Major John M. McDonnell, from Wright Field, Ohio; Capt. William L. Ritchie, from Office of the Assistant Secretary of War, Washington, D.C., for duty as student at Air Corps Tactical School, 1938-1939 course.

To Inglewood, Calif.: Major Franklin O. Carroll, from duty as student at Air Corps Tactical School, Maxwell Field, Ala., to duty as Assistant Air Corps District Representative, Western Procurement District.

To Patterson Field, Ohio: 2nd Lieuts. Hollingsworth F. Gregory and Erickson S. Nichols, from Langley Field, Va.

To Langley Field, Va.: Captain Herbert K. Baisley, from Bolling Field, D.C.

Orders Revoked

Assignment of 1st Lieut. Wilson H. Heal, of March Field, for duty as student at Air Corps Technical School, Chanute Field, Ill., in Maintenance Engineering course.

Assignment of 2nd Lieut. Lester S. Harris, from Selfridge Field, for duty as student in Airplane Maintenance Engineering course at Air Corps Technical School, Chanute Field, Ill.

Reserve Officers to Active Duty

2nd Lieut. Wilfred Rotherham, of Fresno, Calif., to Moffett Field, Calif., to April 10, 1941.

2nd Lieut. Luther J. Fairbanks, of Burt, Iowa, to Barksdale Field, La., to April 24, 1941.

Relieved from Assignment to Air Corps

2nd Lieut. John P. Connor, from duty as student at Air Corps Training Center, Randolph Field, Texas, to the 25th Infantry at Fort Huachuca, Arizona.

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During the latter part of April, Hamilton Field busied itself with the grooming and checking of motors and assembling equipment in preparation for the mimic war in the northeastern part of the United States, while the higher staff officers were engaged in scanning maps and plans.

On April 22nd, 12 B-18 Bombardment airplanes were flown to March Field, Riverside, Calif., to join up with the 19th Bombardment Group to aid in the job of transporting supplies on the "short" hop to New England and points close to Mitchel Field, N.Y. By May 2nd, personnel will be transported by these same planes which will have returned from the East Coast by then. During the concentration, four provisional air transport squadrons will function under direct control of Headquarters, GHQ Air Force.

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FIELD AT FORT LEWIS NAMED "GRAY FIELD"

The War Department recently announced that the Air Corps flying field at Fort Lewis, Washington, has been named "Gray Field," in memory of the late Captain Hawthorne C. Gray, army aeronaut, who lost his life during a free balloon flight from Scott Field, Ill., on November 4, 1927.

Captain Gray was especially interested in studying atmospheric conditions at high altitudes to ascertain, if possible, the effects of rarefied atmosphere on the human body and coincidental physiological reactions. During 1927, he made three balloon flights with these objects in view. On his first flight on March 9th, he reached an altitude of 28,510 feet and broke the American free balloon altitude record. As a result of this flight, valuable data were gathered on the functioning of oxygen apparatus and instruments at high altitudes.

On his second flight on May 4, 1927, Captain Gray, with improvements in oxygen apparatus and other equipment effected as a result of the experiences on his first flight, ascended in his balloon to 42,470 feet, the highest altitude ever attained by man in any type of aircraft, airplane or balloon up to that time. He broke the world's record of 35,433 feet, made by the German balloonists Suring and Benson on June 30, 1901. During the course of his return journey, after passing the 12,000-foot level, Captain Gray, measuring the velocity of his descent through the medium of releasing small parachutes, discovered that the balloon was falling too rapidly to assure a safe landing. All the available ballast in the balloon, utilized for the purpose of reducing its weight and thus checking the rate of descent, having already been thrown overboard, Captain Gray was forced to resort to his parachute. He jumped from the balloon basket at approximately 8,000 feet and landed without injury in a plowed field near Grayville, Illinois. The balloon and the various instruments carried therein were recovered shortly thereafter. For his achievements on this flight Captain Gray was awarded the Distinguished Flying Cross.

On his last balloon ascent on November 4th, he was equipped better than ever before to conduct his experiments in the substratosphere, with further improved oxygen apparatus and superior recording instruments. However, this flight proved fatal. Captain Gray's body was found in the balloon basket which was looped in a tree in the mountains in the vicinity of Sparta, Tenn. His instruments were intact, his body evidenced no signs of violent death, his oxygen mask was still on, and his oxygen valves were open, but there was no oxygen left. It could only be surmised, after closely examining his log, his barograph and the various other instruments, that during the course of his descent earthward, after passing the 39,000-foot level, hix oxygen supply became exhausted, causing his death. Curiously enough the barograph indicated that the highest point reached during this flight, 42,470 feet, exactly duplicated the mark he established on May 4, 1927.

Captain Gray was born in Pasco, Wash., February 16, 1890. He enlisted in the Army for service with the Punitive Expedition into Mexico, on January 19,1915. During the World War he was commissioned a second lieutenant of Infantry, and was subsequently promoted to 1st Lieutenant and then to Captain. In August, 1920, he was detailed in the Air Corps, and he was permanently transferred to that branch of the service in February, 1921. He was a graduate of the Balloon School at Ross Field, Arcadia, Calif., and the Balloon and Airship School at Scott Field, Ill. During the major part of his service with the Air Corps, he was stationed at Scott Field. In May, 1926, he was sent to Europe as an Army Air Corps entrant in the Gordon-Bennett International Free Balloon Race, in which he finished second.

The naming of Gray Field in memory of a distinguished balloonist is considered especially appropriate in view of the fact that the 3rd Balloon Squadron, Air Corps, is stationed at this field.

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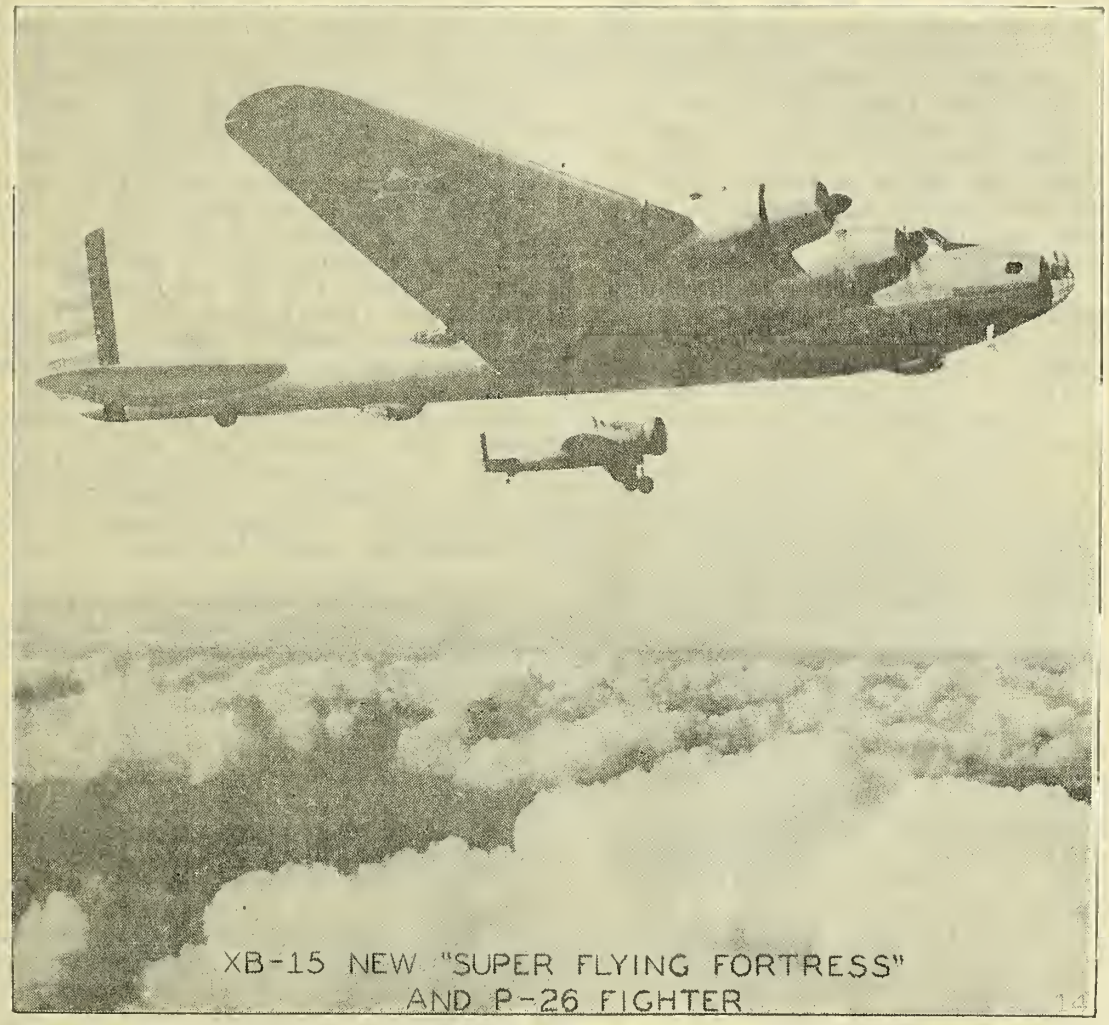
AWARD OF SOLDIER'S MEDAL

Announcement was made by the War Department, under date of April 28, 1938, of the award of the Soldier's Medal to Corporal Richard F. Miller and Private, 1st Class, Earl W. Jordan, Jr., First Corps Area Air Corps Detachment, for heroism displayed in attempting to rescue a soldier from drowning in Boston Harbor, Mass., on the evening of December 22, 1937.

A soldier, while attempting to make a parachute jump from an Army airplane to Boston Airport in connection with a children's Christmas party being staged at the Airport, unfortunately landed in the water several hundred feet from shore. The only boat available was small and unseaworthy, but nevertheless in the face of apparent danger to themselves, Corporal Miller and Private Jordan voluntarily set out in the boat to search for the drowning soldier. In spite of the leaky condition of the boat, they persisted in their efforts of rescue until the boat capsized and they themselves were in grave danger of drowning. Although they were unsuccessful in rescuing this soldier, their brave attempt in the rough, icy water, in the darkness of night characterized it as an act of heroism.

Corporal Miller is a native of Missoula Montana, while the birthplace of Private Jordan is Somerville, Mass.

AIR CORPS NEWS LETTER



XB-15 NEW "SUPER FLYING FORTRESS"
AND P-26 FIGHTER

ISSUED BY
THE OFFICE OF THE CHIEF OF THE AIR CORPS
WAR DEPARTMENT
WASHINGTON

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VOL. XXI AIR CORPS NEWS LETTER NO.

Information Division
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May 15, 1938

Munitions Building
Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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REQUISITES OF A MILITARY COMMANDER

By

Colonel John D. Reardan, Air Corps

Marshal Foch stated: "There is no studying on the battlefield. It is then simply a case of doing what is possible to make use of what one knows."

"Military Command" is authority inherent in military office or commission. The very essence of the power of a commander to control those under his authority derives from military principles and traditions. For this reason, command should be exercised with great exactitude of method and certitude of finality. A receptive attitude toward authority on the part of soldiers and bluejackets will be secured by firmness and justice in the exercise of the command authority.

While command is an attribute of military office, two individuals successively holding the same command may exercise a greatly different influence over their men. Since the authority is the same in each case, it will be seen that command partakes of the qualities of the commander. McClellan and Grant were in turn Lincoln's principal commanders. The difference in their powers of leadership enabled one to succeed where the other had failed.

The degree of success attained by a commander is largely dependent upon his character and personality. Certain personal qualities are indispensable in a successful commander. Napoleon said: "It was not the Roman army that subdued Gaul but Caesar himself; nor was it the Carthagenian army at the gates of Rome that made the Republic tremble, but Hannibal."

It is difficult to assign an order of importance to the personal qualities essential to the successful exercise of command. "Will-power" is, perhaps, entitled to primacy in the case of the supreme commander. As the importance of the command held diminishes, the importance of certain qualities decreases and that of others increases. For the highest commander, upon whom rests the final decision and the all-inclusive responsibility, the possession of strong will-power is vital to the support of the position he must take and maintain with inflexible determination. However, will-power, without the possession of other qualities such as thorough technical knowledge, highly developed powers of ratiocination, and experience, cannot insure success to a commander. On the other hand, while a commander may succeed to a degree, even though he may lack any one of the other qualities, he cannot be a great commander without having strong will-power.

"Moral courage" is another vital quality which the great commander must possess; the courage to pay the costs of victory and to withstand the stresses of defeat; the moral courage to stand firm against all opposition and surmount all obstacles. Fortitude, decisiveness and steadfastness of purpose are the ingredients of moral courage. Marshal Saxe stated: "Of all the accomplishments that are required for the composition of this exalted character (Commander-in-Chief), courage is the first."

To employ too many terms to define personal qualities requisite in a great commander is but to obscure those of vital importance. Three more will be mentioned as being essential. These are "resourcefulness," "creative imagination" and "judgment." Imagination discovers the opportunity, resource devises the means to take advantage of the opportunity, and judgment decides the time for action. These qualities distinguish the "man of action."

To summarize, if a commander possesses to a superlative degree and of a high order, will-power, moral courage, resourcefulness, creative imagination and judgment, he has the fundamental qualities essential to success as a high commander. This assumes, of course, that only a military man will attain to high command, and then only after long training and experience in his profession.

This training and experience is necessary in order to gain sound technical knowledge, and an understanding of and ability to handle soldiers, and to develop initiative and executive ability. These attributes, in varying degree, are essentials for all grades of command. Junior commanders, especially, must possess presence of mind and capacity for quick decision in emergencies.

For commanders of all grades there

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must be added to all these qualities a habit of intensive study. Napoleon said: "The knowledge of the higher branches of the art of war is only to be gained by experience and by studying the history of wars and battles of great leaders." Polybius stated: "For it is history alone, which without involving us in actual danger, will mature our judgment and prepare us to take right views whatever may be the crisis."

Command should be exercised with firmness, kindness, and fairness. Simplicity of method promotes understanding. When to intervene and when to allow subordinates discretion is the final test of judgment. Success in this particular inspires loyalty and a spirit of willingness in the command.

A truly great commander will be a great natural leader, possessing, to the full, the winning qualities which distinguish a great leader, noble bearing, calmness, dignity, affability, patience, and the ability to indoctrinate his followers. Such a commander has prestige. He animates his command and inspires them with faith in his destiny.

All these valuable qualities must be translated into effective action by wise planning, proper orders, and a prompt follow-up to insure execution. A commander must habituate his command to prompt and willing response to his authority and to the proper authority of all the various grades of subordinate commanders. Wellington said: "Habit second nature? Habit is ten times nature!"

The high commander's method of habituating his command to authority lies, largely, in the proper instruction and training of his subordinates, and in frequent drills and exercises. The commander must place upon each subordinate the proper degree of responsibility and accord to him an initiative commensurate with his responsibility, so that each officer will acquire the qualities demanded in an officer of his grade. As William James puts it: "Silently, between all the details of his business, the power of judging will have built itself up within him as a possession that will never pass away."

And, finally, the commander must promote discipline by promptly punishing disobedience, and by equally promptly rewarding merit and recognizing bravery. Remember the famous instance of the death of La Tour d'Auvergne on the field of battle and Napoleon's order that the name of La Tour d'Auvergne forever after be borne on the roster of his company.

The functions which command must discharge vary with the echelon of command. The lowest commander has the duty of directly leading his unit in action. Other commanders have additional responsibility for supply, training, and the maintenance of health, discipline and morale.

As the scale of command is ascended the functions become more embracing and general, and new functions appear which are not required of the lower grades. The highest commander has the function of making changes, where found necessary, in the campaign plan, the major strategy, and in the battle tactics. He is responsible for the formulation of new plans to meet unexpected situations arising during the course of the war.

Each commander having a staff has the function of training it to work as a coordinated team, properly indoctrinated in the commander's own application of military principles, tactics and strategy. The commander having a staff must supervise the functioning of the staff to insure that its every member works to a common end,- the execution of the will of the commander.

The foregoing review of the requisites of a military commander will suggest that not every officer will be equipped to become a senior commander. Some stop far short of this goal. Others approach it more nearly. The following discussion will develop additional reasons why an exceptionally well endowed leader is required for the highest command. He must be somewhat of a statesman, as well as a general or an admiral.

Lincoln states: "Every war is begun, dominated, and ended by political considerations." In war the supreme commander and other high commanders must harmonize their strategy and tactics with existing national policies, in the same way that our war plans formulated in peace time are kept coordinated with such policies. For example, considerations of national policy toward a given neutral may affect operations by reason of the fact that it is necessary to avoid giving offense to such neutral.

During the progress of the war the supreme commander will require to be kept informed by the Government of all changes in policy involving the conduct of the war. His high commanders, also, should have knowledge of policies which may be involved in the operations under their immediate control. This is especially true in the case of naval commanders who, frequently, in isolated situations are called upon to make decisions involving foreign relations.

A great deal of the major strategy during the opening weeks of a war will likely be in accordance with war plans formulated by planning bodies prior to the beginning of the war. However, it is the responsibility of the supreme commander to decide whether or not to use these plans, depending on whether they meet the requirements of the actual situation. If he decides they do not, it is his duty to determine upon the strategy he will employ.

Command and strategy both have the objective of winning the war. More particularly, the aim of the commander is victory in battle; and the strategy he

employs, whether of his own or some other's conception, is devised to bring his command into a situation where such victory is possible, and also to insure that the victory will secure decisive results. The commander must decide upon the time and the place for battle. Silo said: "If thou art a great general, Marius, come down and fight." Marius replied: "If thou art a great general, Silo, make me come down and fight."

In the gigantic operations of modern war it may be that better results can be secured if one man formulates the strategy and another carries it into execution. Ludendorff and Hindenburg are an example of this sort of teamwork. A general staff may devise the strategy and a commander in the field or at sea carry it out. The operation resulting in the battle of Jutland was in accordance with the strategy of the British Admiralty. Admiral Jellicoe, of course, was responsible for the strategy at sea, as made necessary by the actual situations arising during the battle.

The senior commander on the field, however, is in supreme command. Napoleon said: "It is better to have one bad general than two good ones." Montecuculi wrote: "The first security for the success of an army is to confer the command on one individual."

Major strategy, as promulgated in the "strategical plan" for a war does not attempt to provide for what has long been termed "the exigencies of war." Subordinate to the major strategy of the war is a very important field of strategy which is the province of the commander directing the operations of large units in the field, or at sea.

The concentration of these large units on the field of battle in readiness for action must be accomplished by the strategy of the unit commanders in all the details not prescribed in the operations plan. In the case of naval units, especially, this may involve hundreds of miles of steaming and coping with several auxiliary situations en route, not anticipated in the operations plan.

On land, with the rapid communication of the present day, there is often sufficient time to present the nature of the situation encountered to the high command and receive his orders. However, with airplanes and fast tank units such may not be the case.

Perhaps the most important command function in the field of tactics is the determination of the proportion of the whole force to be held in reserve, for the purpose of countering the thrusts of the enemy which may gain unanticipated success, and to follow up the commander's own successes, in order to secure decisive victory. Different situations in a campaign emphasize, in turn, different qualities of the commander. In one situation the vital thing may be to decide to retreat; in another the moment for the attack; in a third the time to initiate a pursuit.

The commander of the whole force engaged must recognize that it is his function to make major tactical decisions, such as the above. The commander is, likewise, primarily responsible for the training, clothing, feeding, shelter, discipline, and morale of his command. He leads his command in battle and cares for it on the march, in bivouac or camp. No matter how large the force acting as a single command, the commander of the whole force has these tactical functions and command duties.

History is full of examples illustrating the harm done when a commander, who should be independent in the field, is controlled from above. Two will suffice. In 1781, Admiral Hood, operating alone with an independent tactical command, but under the flag of Admiral Rodney, had seventeen vessels-of-the-line under orders to await the French to windward of Martinique. Later, Rodney, against Hood's protest, ordered Hood to take station to leeward of that island. When the French finally arrived, they had the weather-gage of Hood, and the latter's force suffered badly and was unable to prevent the French from capturing Tobago. This success permitted Admiral DeGrasse to go to Chesapeake Bay and cooperate in bringing about the capture of Cornwallis.

In 1862, President Lincoln approved McClellan's strategy for an attack against Richmond by an advance up the York Peninsula. He then interfered with the tactical execution of the plan by detaching McDowell's Corps for the defense of Washington. It is doubtful whether McClellan would have been successful anyway. However, this interference gave McClellan an alibi and resulted in his failing to prosecure his attack vigorously. This inaction probably prolonged the war for a year.

For several months after our entry into the World War, General Pershing was besieged by many in authority among the Allies to agree to the incorporation of American battalions in French and British regiments. He was also advised to train American troops in the doctrine and tactics of the defensive. To the first he returned an emphatic and oft repeated "no." To the second his answer was an order, "All instruction (of troops) must contemplate the assumption of a vigorous offensive"!!! General Pershing thus displayed the true qualities of greatness as a leader. Thus were evidenced his <u>will-power</u> and <u>moral courage</u>.

Few, indeed, are the Caesars who cross the Rubicon, the Hannibals who surmount the Alps, or the Alexanders who conquer the world! Fewer still are the great military commanders who shine brightly even in defeat. Robert E. Lee was at his greatest when he refused to resort to guerilla warfare, but surrendered his

army to Grant at Appomatox.

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ONE OF THOSE ERRANDS OF MERCY IN PANAMA

The latest errand of mercy by the Air Corps in the Panama Canal Department was on April 20th, when Lieut. T.J. Meyer departed from Albrook Field for Penas Bay, Republic of Panama, to transport medicine to a civilian who was seriously ill. The 150-mile flight and water landing were successfully made in the Douglas Amphibian, but a minor mishap occurred as the ship was being beached by its crew.

Things were going smoothly until one wheel sank in a soft spot in the sand and a large breaker crashed into the tail section at the same time, resulting in a damaged rudder and elevators.

Temporarily disabled, the plane had to remain where it was until a crew arrived by air from Albrook Field and repaired the damages. The medicine was delivered, however, and the plane and its crew returned safely to the home station.

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HIGH SCHOOL BOYS VISIT ALBROOK FIELD

An inspection tour of the airplanes and post activities of Albrook Field, Panama Canal Zone, by students of the Balboa High School was conducted on Saturday, April 30th. Approximately 75 students arrived at the post at 8:30 a.m., and were given a brief talk by Lieut. Colonel Benjamin G. Weir, post commander, on various phases of Air Corps activities. The students were then conducted through the different organizations on the post, the Engineering shops, the Air Corps Supply Building, Ordnance Building, Hospital, Parachute Department, and the hangars of the squadrons. Each squadron had two representative airplanes on the line, with catwalks arranged for easy inspection. The cowlings were removed from the engines. Several officers from the different organizations were designated to conduct the groups of students throughout the inspection tour.

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IN MEMORY OF FIRST TRANS-ISTHMIAN FLIGHT

Army and Navy flying personnel in the Panama Canal Department fittingly commemorated the silver anniversary, on April 27th, of the first airplane flight over the Panama Canal.

Mr. T.B. Rodenbaugh, Section Superintendent of Pan American Airways, Inc., Cristobal, Canal Zone, on April 28th, addressed the following letter to Brigadier General George H. Brett, Commanding General of the 19th Wing, Albrook Field, Canal Zone, with reference to the above.

"Dear General Brett:

Just a brief note to express to you our appreciation for the interest shown by you in assigning six Army bombers to convoy our DS-3 from Albrook Field to France Field yesterday during the flight commemorating the 25th anniversary of Mr. Robert Fowler's trans-Isthmian flight.

The formation composed of our plane, the Army and Navy planes made a very, very lovely sight from the ground, and we are quite sure that your cooperation in this matter has gone a long way to making this flight a most successful one; one that will be remembered for a long time, not only on the Isthmus but other places as well.

Once more thanking you for your interest and help, and with kindest personal regards from the writer, we remain

Very truly yours,
PAN AMERICAN AIRWAYS, INC."

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REVIEW FOR PANAMA CANAL DEPT. COMMANDER

On the morning of April 27th, an aerial review was held in honor of Major General David L. Stone, U.S.A., Panama Canal Department Commander. Upon the completion of a trip to the States, General Stone arrived at Cristobal, Canal Zone, aboard the S.S. CRISTOBAL. As the ship entered the bay, it was met by a formation of Attack, Bombardment and Pursuit planes, led by Brigadier General George H. Brett, Commander of the 19th Wing, Air Corps. After passing in review twice, the airplanes returned to their stations at Albrook and France Fields.

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Major Lotha A. Smith, Instructor at the Air Corps Tactical School, is under orders for duty at March Field, Calif.

A FORCED LANDING IN HAWAIIAN WATERS

On the afternoon of April 9, 1938, Lieut. Elder Patteson, of the Headquarters Squadron, 18th Wing, Hawaiian Department Airways Officer, was forced to land an OA-3 Amphibian in the open sea between the Islands of Molokai and Oahu. He was returning to Hickam Field from Morse Field, on the Island of Hawaii, on an administrative flight. Other personnel in the airplane at the time were Privates Wright, crew chief; Ryley, radio operator, and Roark and Barker, passengers. The ceiling was about 1,000 feet, and the visibility from $\frac{1}{4}$ to $\frac{1}{2}$ a mile.

The forced landing occurred at about 3:10 p.m. While flying at an altitude of about 800 feet, the left engine, without giving preliminary warning of any kind, cut out completely. It was later determined that the engine failure resulted from slipping of the timing gear. The airplane would not maintain altitude on one engine, so Lieut. Patteson used the one engine to stretch his glide long enough to get properly headed into the wind, making a right turn of approximately ninety degrees to do so. At the same time he directed the radio operator to reel in the antenna. The sea was very turbulent and the landing was rather rough, but apparently did no harm to the airplane. The OA-3 rode the heavy waves very well so long as no attempt was made to taxi. When taxying, even slowly, the heavy waves threatened to swamp the airplane.

The radio operator was unable to use his command set because it required a trailing antenna, but he promptly began sending distress signals on his short wave set. Lieut. Patteson and the crew chief tried to ascertain what was wrong with the left engine, but were unable to do so. About an hour after the landing, a radio message was received from Hickam Field that their signals had been picked up and that assistance was on the way.

At approximately 4:50 p.m., a large fishing sampan, manned by Japanese, arrived near the airplane. They endeavored to throw a line to the airplane and finally succeeded. At about 5:30, the line was secured and towing was commenced.

Two Navy destroyers on patrol duty around Oahu were diverted to the area and arrived on the scene just before dark. They fell in astern of the Amphibian. Shortly after dark the aircraft tender U.S.S. PELICAN arrived and took over the tow from the sampan. The destroyers kept the airplane flooded with powerful light during all the after dark portion of the towing operations. As the PELICAN took over the tow, a small Coast Guard cutter also reached the scene. The PELICAN towed the airplane the rest of the way to Pearl Harbor, arriving opposite the Fleet Air Base ramp at about 11:00 p.m. A Navy motor launch then gave the airplane a tow and pulled it directly to the ramp. The landing gear was lowered and a line was put ashore and secured to a tug which pulled the airplane out of the water onto the ramp.

Lieut. Patteson and the four enlisted men remained aboard the Amphibian throughout the entire period of towing. It was a rough voyage but, with the exception of the "mal de mer" suffered by some, all arrived safe and sound on dry land.

The sincere appreciation and thanks of the entire 18th Wing have been expressed to the Navy, the Coast Guard and to Captain Heikichi Ichida of the fishing sampan.

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23RD SQDB. PERSONNEL LEARN ABOUT B-18

The 23rd Bombardment Squadron, Hawaii, participated in the course of instruction on the B-18's given by the 31st Bombardment Squadron the first week of April. After a series of lectures covering all characteristics and equipment of the B-18's, most of the pilots of the 23rd were designated as students, to be checked off either as pilots or co-pilots. At the time this is being written the officers of the 23rd Squadron are flying daily with the 31st Bombardment Squadron to expedite the training period. The scribe of the 23rd expresses the hope that "we will soon be able to qualify as pilots and co-pilots and start flying our own B-18's."

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LOST AND FOUND

The Commanding Officer of the 35th Division Aviation, Missouri National Guard (Major E.R. Alexander), Lambert-St. Louis Municipal Airport, Robertson, Mo., suggests that a column in the News Letter be used as a medium for reporting lost and found articles. He says that occasionally visiting personnel lose articles but do not make inquiry at stations concerning the loss and, consequently, organizations are unable to return articles to the rightful owners.

The 35th Division Aviation has in its possession a sum of money, one pocket watch and one Sheaffer Life Time pen which are believed to belong to visiting personnel, since inquiry discloses that no member of this organization makes claim for same.

Major Alexander is desirous of returning the above articles to the rightful owners, since some sentiment may be attached to a particular article.

The News Letter welcomes this opportunity to render assistance in effecting the return to rightful owners of articles lost by visiting Army airmen.

ARMY BUDDIES TEAM UP IN CIVIL LIFE

Careers which converged in June, 1935, at Randolph Field, Texas, when they were Cadets at the Air Corps Primary Flying School, and followed the same course for three years, will continue to parallel in civil life for Lieuts. Willard D. Griffith and Edward F. Cullerton, Air Reserve, of Kelly Field, Texas.

Lieut. Griffith was granted leave of absence for 25 days and Lieut. Cullerton for 22 days, both officers departing on April 2, 1938. Lieut. Griffith, who is 27 years of age, attended the Iowa State College at Des Moines, from 1928 to 1930. He is a native of Atlantic, Iowa. Lieut. Cullerton, who is 26 years of age, attended Gonzaga University at Spokane, Washington, from 1929 to 1932, and the University of Montana from 1932 to 1933. He is a native of Butte, Montana.

After they met at Randolph Field. their Army careers were practically the same. The two were transferred to Kelly Field on the same day, after completing eight months' training at Randolph Field (Primary and Basic Stages). Both specialized in Attack Aviation and both served a year as Flying Cadets at Barksdale Field, La. Then they were commissioned as second lieutenants in the Air Reserve and assigned to duty at Randolph Field in June of last year. On July 15th, they were sent to Kelly Field, Texas, both being detailed as instructors in the Attack Section.

Upon the expiration of their leaves of absence they were relieved from assignment and duty at Kelly Field and were directed to proceed to their respective homes.

Both officers have accepted positions as pilots with the United Air Lines Transportation Corporation, Municipal Airport, Oakland, Calif.

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REFRESHER STUDENTS AT KELLY FIELD

Four second lieutenants of the Air Reserve, who recently reported at the Air Corps Advanced Flying School, Kelly Field, Texas, for refresher training, were all assigned to the Attack Section for flying and attached to the 63rd School Squadron for instruction in Duties of Squadron Officers.

Lieut. Charles R. Johnson reported at Kelly Field on April 26th, as did Lieut. Rupert E. Herr, who was on temporary duty at Randolph Field since February 17th. Lieut. Aaron T. Vance joined from Randolph Field on May 2nd, the same date on which Lieut. Thomas A. Davis was assigned to Kelly Field, the latter having been on temporary duty at Randolph Field since February 23rd.

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Captain Roderick N. Ott, Air Corps, is placed on the retired list May 31, 1938, for disability incident to the service.

ASSIGNMENT OF C. & G.S. SCHOOL GRADUATES

Under Special Orders of the War Department, recently issued, the following-named Air Corps officers are assigned to the stations indicated upon the completion of their present course of instruction at the Command and General Staff School, Fort Leavenworth, Kansas:

To East Boston, Mass.: Major James D. Givens, for duty as Instructor of the 26th Division Aviation, Massachusetts National Guard.

To the Office of the Chief of the Air Corps, Washington, D.C.: Majors Barney M. Giles, Ennis C. Whitehead and Capt. John F. McBlain.

To Selfridge Field, Mich.: Captain Kirtley J. Gregg.

To Dayton, Ohio: Major George H. Beverley, for duty as Air Corps Technical Supervisor.

To Bolling Field, D.C.: Lieut. Colonel Floyd E. Galloway.

To Maxwell Field, Ala.: Major Orvil A. Anderson, for duty as member of the Air Corps Board; Lieut. Colonel Leo A. Walton.

To Randolph Field, Texas: Captains Joseph C. Hopkins and James S. Stowell.

To Kelly Field, Texas: Captain Lawrence J. Carr.

To Langley Field, Va.: Major George C. McDonald.

To Fairfield Air Depot, Patterson Field, Ohio: Major Milo McCune.

To Mitchel Field, N.Y.: Captains Uzal G. Ent and Wallace E. Whitson.

To Chanute Field, Ill.: Captain Joe L. Loutzenheiser.

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Colonel Alfred H. Hobley, Air Corps, who is nearing the completion of his tour of duty in the Office of the Chief of the Air Corps, Washington, D.C., as Chief of the Finance Division, is being relieved from this duty and from additional duty with the Organized Reserves, 3rd Corps Area, effective June 21, 1938. He is detailed as observer, with station at Baltimore, Md., under the provisions of Section 127a, National Defense Act, and will perform duty at such aircraft and aircraft manufacturing plants as may be selected for this purpose by the Chief of the Air Corps.

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The following-named Air Corps officers are being relieved from duty at their present stations and assigned to duty as Air Corps Technical Supervisors at the localities indicated:

To San Diego, Calif: Major Edward V. Harbeck, Jr., from duty in the Inspection Division, Office of the Chief of the Air Corps, Washington, D.C.

To Harrisburg, Pa: Major John G. Williams, student, A.C.Tactical School.

To Dayton, Ohio: Captain Harlan T. McCormick, student, A.C.Tactical School.

PRE-MANEUVERS CONFERENCE AT LANGLEY FIELD

Principal speakers at the conference held on Thursday morning and afternoon, April 28th, at the Enlisted Men's Service Club, Langley Field, Va., as a prelude to the mass maneuvers of the General Headquarters Air Force, scheduled to be held in the northeastern section of the United States, May 12th to 17th, were Messrs. A.E. Lodwick, Vice President of the Aviation Corporation of New York City and President of the Stinson Aircraft Corporation, and Devon Francis, Aviation Editor of the Associated Press.

Mr. Lodwick's address concerned the manufacturing aspect of aviation. He discussed modern aircraft in general and mentioned some of the type planes which would be used in the future. Francis spoke on the publicity angle in aviation. He is considered an authority on aviation and has written several articles on the subject, some of them having appeared as news and feature stories throughout the country.

Officers and enlisted men from the six airdromes of the GHQ Air Force attended the all-day meetings. Lieut. Colonel Ira C. Eaker, of the Information Division, Office of the Chief of the Air Corps, had charge of the meeting. Among the officers present were Lieut. Colonel C.W. Connell, Major U.G. Jones and Captain Joseph Smith, of Mitchel Field, N.Y.; Major James P. Hodges, Lieuts. Beirne Lay, Jr., Robert Travis, James Rothrock, David A. Tate, L.L. Brabham and Kenneth B. Berquist, of Langley Field; Lieuts. J.C. Jensen, R.W. Henderson and Henry Fine, of March Field, Calif.; Lieuts. T.S. Olds and H.L. Grills, of Barksdale Field, La.; Lieut. E.P. Dimmig, of Selfridge Field; Lieut. K.R. Kreps, of March Field, Calif., and Lieut. Harris B. Hull, Res., of Washington, D.C. The latter made a brief talk.

Among the enlisted men who attended were: Staff Sergeant Francis Skidmore, Corporal George Becker and Private Norman E. Noll, of Langley Field, Va.; Sergeant Stan Drexler, Privates Leon M. Christianson and Charles Armour, of March Field, Calif.; Sergeant E.M. Divine, Private William J. Turner, of Hamilton Field, Calif.; Private Edward Mansfield, of Selfridge Field, Mich.; Privates T.C. Hollick and Thomas Hallowell, of Barksdale Field, La., and Private Jerry S. Schwida, of Langley Field.

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Three Air Corps officers, now on duty as students at service schools, have been assigned to the Office of the Chief of the Air Corps, Washington, D.C., upon the completion of their present course of instruction, viz: Major Omer O. Niergarth and Captain Donald R. Goodrich from the Air Corps Tactical School, and Captain Donald F. Fritch from the Command and General Staff School.

OKLAHOMA STUDENTS VISIT KELLY FIELD

Two officers (instructors) and twelve cadets from the Oklahoma Military Academy at Claremore, Oklahoma, visited the Air Corps Advanced Flying School, Kelly Field, Texas, on April 22nd.

The visitors were escorted around the field by Lieut. Crickette. The tour of the field included a visit to the Attack, Bombardment, Observation and Pursuit Sections; the Miniature Range Building and the Post Operations Office. An instructor at each section explained the various stages of flying training and outlined the routine section work.

The visitors had the opportunity of renewing old acquaintances with Kelly Field officers who visited Claremore a year ago during the course of a student maintenance flight. The cadets were very much interested in the flying activities of the school and were especially keen about the miniature artillery range.

After such an extensive tour crowded into a single morning, the visitors were quite content to relax and eat lunch at the Cadet Mess as guests of the Cadets of the Advanced Flying School. In the afternoon they departed for a visit to the San Antonio Air Depot at Duncan Field.

The officer in charge of the party was 1st Lieut. James L. Fletcher, Air Reserve, a graduate of the Air Corps Training Center. Lieut. Fletcher, a student of Class No. 12-B, graduated on February 26, 1932, specializing in Obser vation Aviation. He is now an instructor at the Oklahoma Military Academy.

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LECTURES ON ENGINES AND EQUIPMENT AT KELLY FIELD, TEXAS.

First Lieut. George S. Smith, with Major Edwin R. Page, as passenger, flying an A-17 Attack plane, arrived at Kelly Field, Texas, from Wright Field, Dayton, Ohio, on April 25th. The purpose of the visit of these two officers, who are on duty at the Materiel Division, was to deliver a series of lectures on Engines and Equipment to the students of the Advanced Flying School.

Several officers of the permanent garrison at Kelly Field attended the two lectures, since they remembered other instructive lectures Lieut. Smith had previously delivered and, further, that he usually included in his remarks information on the latest and most interesting developments. They found that not only could they learn something about engines from their brother officers at the Materiel Division, but also a thing or two about skeet shooting, as was evidenced by the ability of Major Page and Lieut. Smith to powder them from all angles. Both officers departed

(Continued on Page 8).

DISTINGUISHED FLYING CROSS TO COL. OLDS

With military pomp and ceremony, Lieut. Colonel Robert Olds, Air Corps, Commanding Officer of the Second Bombardment Group of Langley Field, Va., was presented the Distinguished Flying Cross on Saturday morning, April 30th, before the personnel of his Group and a large number of friends and spectators.

The honor was bestowed upon Lieut. Colonel Olds for "extraordinary achievement while participating in an aerial flight from Langley Field to Buenos Aires, Argentina, South America."

Major General Frank M. Andrews, Commanding General of the GHQ Air Force, made the award, the citation being read by Major William W. Dick, Adjutant General of the GHQ Air Force.

In presenting the Distinguished Flying Cross to Lieut. Colonel Olds, General Andrews said:

"No words that I might say can add to the honor your country has bestowed upon you, but I would like to add my personal sincere congratulations. In behalf of the GHQ and the Air Force I thank you for your contribution. You have added prestige and honor to the tradition of the Army."

The citation, which was announced several days prior to the ceremonial rites by Hon. Harry Woodring, Secretary of War, follows:

"Robert Olds, lieutenant colonel, Air Corps, United States Army. For extraordinary achievement while participating in an aerial flight from Langley Field, Virginia, to Buenos Aires, Argentina, South America, and return, February 15 to 27, 1938. As commanding officer of a squadron of six airplanes, Lieutenant Colonel Olds was responsible for the planning and execution of this flight in the interest of Pan-American amity, which flight by its nature was extremely hazardous and exacting. His ability, devotion to duty and excellent leadership, supported by the other members of the flight, made possible its successful accomplishment. This outstanding flight reflects the highest credit on the military forces of the United States."

At the conclusion of the military ceremonies, General Andrews extended his personal congratulations to Colonel Olds, and later His Excellency, Radu Irimescu, Roumanian Minister to the United States, extended personal greetings, saying: "Your country has given you a well deserved honor."

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Warrant Officer John J. Arsenault has been relieved from his present assignment and duties at Allegheny County Airport, Pittsburgh, Pa., and assigned to duty at Wright Field, Dayton, Ohio.

ARTILLERY ADJUSTMENT AT CAMP STANLEY

The students of the Observation Section of the Air Corps Advanced Flying School, Kelly Field, Texas, conducted their Artillery Adjustment Firing at Camp Stanley, Texas, on April 11th.

The 1st Battalion of the 15th Field Artillery, from Fort Sam Houston, Texas, under the command of Major H.B. Parker, conducted the firing. All students assembled at the battery positions during the first period to watch a demonstration adjustment by two of their flying instructors, Lieut. Walker, pilot, and Lieut. Mason, observer.

For the second period, beginning at 1:00 p.m., three student teams worked with each battery. The battery CP's were located on the Bullis landing field, about five miles from the battery positions. Each student fired four problems instead of the six formerly assigned, due to the restricted use for one week of the landing field at Bullis. Fifty-four rounds per student were used on the following types of adjustment:

(a) Bracket adjustment, using both a mark base point and a reference point method of locating the target.

(b) A change target problem to shift to new target with one gun precision adjustment.

(c) A lay-on-me method of designating the target, with bracket adjustment using two-way and one-way radio communication.

(d) A battery precision adjustment, using a smoke ladder.

High explosive shell was used throughout the firing, with the exception of an occasional smoke round on lost rounds and on the ladder bracket adjustment. The firing was completed at 4:00 p.m., on April 14th, with only one morning lost by inclement weather. A total of 955 rounds of shell H.E. and 134 rounds of smoke were expended.

Without such excellent cooperation as was rendered by the 15th Field Artillery, the student firing could not have been completed in the allotted time. The firing batteries were fast and accurate. They were in positions daily before 8:00 a.m., and remained until 5:00 p.m. The Commandant of the Advanced Flying School, through the Commanding General of the Second Division, commended the officers and men of the 1st Battalion of the 15th Field Artillery for the splendid spirit of cooperation which they exhibited.

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Lectures at Kelly Field (From Page 7).

from Kelly Field on the morning of April 28th for the return trip to their home station.

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CAVALRY DETACHMENT "BOMBED" WITH SUPPLIES

Reporting upon the result of the first day's test of dropping from an Army airplane supplies to a Cavalry detachment in the Big Bend district in the vicinity of Balmorhea, Texas, Brigadier General Ben Lear, Commanding General of the 1st Cavalry Division, Fort Bliss, Texas, states that this test proved to be an outstanding success. Food, Hay, grain and wood were dropped from the air to the detachment. Two eggs out of four dozen dropped to soldiers were cracked. One parachute out of twenty failed to open. Otherwise the supplies were delivered intact.

The tests were scheduled to be continued for four days. The 1st Platoon, Troop A, 8th Cavalry, consisting of 30 men and horses, was assumed to be completely isolated in a mountainous region where it is impossible for an airplane to land. It was necessary for more than 1,000 pounds of supplies to be dropped daily from a B-10 Bomber. All supplies, except hay and wood, were dropped in special containers, supported by individual parachutes.

General Lear's telegram to the War Department reporting the result of the first day's test follows:

"The following supplies were delivered by air to cavalry platoon today: 490 pounds of hay, 300 pounds of oats, 200 pounds of wood and 160 pounds of rations. The rations consisted of 8 cans of applesauce, 9 pounds of bacon, 12 pounds of corned beef, 32 pounds of bread, 3 pounds of butter, 4 dozen eggs, 14 pounds of smoked ham, 20 pounds of potatoes, two packages of raisins, 5 pounds of onions, 36 oranges, 4 pounds of coffee, 6 cans of corn, two cans of jam, 8 cans of milk, 6 cans of peas and 3 cans of tomatoes.

"The test was highly satisfactory. The time required for dropping 20 bundles was 50 minutes. The condition of packages and contents was excellent except in one case where the parachute failed to open. Only two eggs were cracked out of four dozen delivered. Bales of hay and wood were delivered without parachutes. The altitude of the plane was about 400 feet. Aim of Captain D.W. Mayhue, pilot of the plane, was excellent. All but three of the bundles were dropped within 300 yards of panel."

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officers,

The following-named Air Corps, upon the completion of their present course of instruction at the Air Corps Tactical School, Maxwell Field, Ala., are assigned to duty at the stations indicated:

Captain Benjamin T. Starkey, 1st Lieuts. Edward H. Alexander and Mills S. Savage to Randolph Field, Texas.

First Lieut. Philip D. Coates to Kelly Field, Texas.

GENERAL WESTOVER FLIES TO PANAMA

Major General Oscar Westover, Chief of the Air Corps, left Brownsville, Texas, on the Mexican Border, at the mouth of the Rio Grande, on the morning of May 13th, for Panama, via Vera Cruz, Mexico, and Guatemala City, Guatemala, where he was scheduled to land some time in the afternoon.

The purpose of General's visit to Panama was to inspect the Army Air Corps activities in the Canal Zone, this entailing his absence from the United States for about two weeks.

General Westover piloted a Northrop A-17 Attack plane and was accompanied by Staff Sergeant Samuel Hymes, his crew chief.

The Pan American Airways, which operates scheduled air line services between the United States, Panama, and countries to the South, made arrangements to maintain continuous radio communication with General Westover during the entire time of his trip. At no time was he to be out of communication with at least one of the stations of the Pan American Airways from the time of leaving the United States until his arrival in Panama.

Through special permission from the Federal Communications Commission, arrangements were made for direct radio communication between the Pan American Airways radio station at Brownsville and the Army Air Corps radio station at Bolling Field, D.C. In this way, although in the air over Central America, General Westover was enabled to maintain constant touch with his own office in Washington and with the War Department. At 9:15 a.m., EST, he landed at Albrook Field, C.Z.

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FROM SCHOOL TO NATIONAL GUARD INSTRUCTORS

Majors Robert D. Knapp and Bob E. Nowland, Air Corps, now on duty as students, the former at the Air Corps Tactical School, Maxwell Field, Ala., and the latter at the Command and General Staff School, Fort Leavenworth, Kansas, are under orders for duty as Instructors with the Air Corps, National Guard, upon the completion of their present course of instruction.

Major Knapp is assigned with the Arkansas National Guard and Major Nowland with the 40th Division Aviation, California National Guard. The first named officer will be stationed at Little Rock, Ark., and the last named at Los Angeles, Calif.

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Lieut. Colonel William E. Lynd, Air Corps, is under orders for duty in the Hawaiian Department, effective upon the completion of his present course of instruction at the Naval War College.

V-7737, A.C.

KELLY FIELD ACTIVITIES

Major John V. Hart, Chief of the Bombardment Section of the Advanced Flying School, Kelly Field, Texas; 1st Lieut. Edgar R. Todd, Squadron Engineering and Operations Officer, 64th School Squadron; Technical Sergeant Harry Glasscock and Sergeant Fred S. Simpson, also of the 64th School Squadron, departed from Kelly Field by rail on April 29th for the Douglas Aircraft Factory at Santa Monica, Calif., for the purpose of ferrying one B-18 airplane to their station. They returned on May 4th.

The Engineering Section of the 61st School Squadron, during the month of April, kept a daily average of fifteen P-12's and fifteen Seversky BT-8's in commission for the flying activities of students and instructors of the Pursuit Section of the Advanced Flying School.

The 63rd School Squadron has established a Rest Camp on the Medina River, ten miles from Kelly Field. It is a beautiful site, located under tall spreading pecan trees. Since the camp is so near the field, nearly all of the men in the Squadron have visited it. In addition to the fishing, the camp offers facilities for horseshoe pitching, soft ball, and other athletics. On the first two days of the current fishing season, men in the Squadron caught some prize bass and catfish, also some frogs were stabbed. "Two of the frogs," says the News Letter Correspondent, "were about as large as the 'Flying Fortress.'" All men in the Squadron agree that this camp is something that has been needed for years. It offers the men a perfect place to "unlax."

Mr. Douglas J. Ingells, Correspondent of the MODEL AIRPLANE NEWS, and staff member of the Dayton DAILY NEWS, Dayton, Ohio, was a visitor at Kelly Field on May 4th and 5th. He is gathering material which will enable him to write a feature story on Cadet Life at Randolph and Kelly Fields for the MODEL AIRPLANE NEWS Magazine. Mr. Ingells flew to Kelly Field via American Air Lines and departed on May 5th for the return journey by air to Dayton.

Father Tein and ten students of St. Mary's University, San Antonio, Texas, were visitors at Kelly Field on May 4th, and were conducted on a tour of inspection of the various post activities and installations. All the students evinced special interest in the radio facilities of the Air Corps Advanced Flying School. First Lieut. John H. Bundy, Air Corps, accompanied the visitors on their tour of the post.

ACTIVITIES AT LUKE FIELD, T.H.

The 4th Reconnaissance Squadron has taken over the old 23rd Bombardment Squadron hangar, and is busily engaged in repairing and touching up the interior before moving in. The News Letter Correspondent states that "it will be a great asset to have our Operations, Armament, Communications and Supply in the same hangar rather than at opposite ends of the field as in the past."

During the period from April 1st to 15th, the flying activities of the 50th Reconnaissance Squadron were limited in view of the numerous lectures and transition in connection with the B-18 airplanes.

On April 13th, Captain Ferguson led a flight of three B-12 airplanes to Kauai for the purpose of making an air-ground reconnaissance in preparation for tentative squadron field duty.

During the second week of April, the Base Headquarters and 17th Air Base Squadron was well protected. Two battleships of the Navy were anchored less than a stone's throw from the Squadron area. Their officers issued an invitation for the men of Luke Field to visit the ships and get a vague idea of how things are done in the Navy, and, adds the News Letter Correspondent, "to make us skeptical as to whether casting our lot with the Army was the proper thing to do."

"We are still trying to become accustomed to our new Squadron designation; also wondering when we will be transferred bag and baggage to Hickam Field."

This Squadron has a hundred percent membership of noncommissioned officers in the recently organized Luke Field Noncommissioned Officers' Club.

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Some idea of the enormous amount of work which the Depot Supply Department of the San Antonio Air Depot, Duncan Field, Texas, is called upon to perform may be gained from the fact that during the twelve months ending April 30th, the number of vouchers handled amounted to 98,550. Freight handled by air totalled 1,266,326 pounds, and 455,228 postings were made to the Stock Record Account.

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Three field officers of the Air Corps, who are nearing the completion of their foreign service tours, are under orders for duty at Air Service stations in the United States, as follows: Lieut. Colonels Benjamin G. Weir, from Panama, to March Field, Calif.; William O. Butler, from Panama, to Barksdale Field, La., and Thomas S. Voss, from the Philippines, to Selfridge Field, Mich.

FRANCE FIELD TO SAN SALVADOR FLIGHT

Upon the approval of the Commanding General of the Panama Canal Department, a courtesy training flight of ten B-10B airplanes from the 6th Bombardment Group, stationed at France Field, Panama Canal Zone, flew to San Salvador, El Salvador, and returned by way of San Jose, Costa Rica.

The flight consisted of twenty officers and twenty enlisted men, commanded by Lieut. Colonel George E. Lovell, Jr., Air Corps. The officer personnel comprised Major George W. Polk, Jr., Capt. Thurston H. Baxter, 1st Lieuts. Truman H. Landon, Robert F. Tate, Charles Sommers, Alvin R. Luedecke, Morris H. Shedd, Donald B. Diehl, 2nd Lieuts. Frank P. Smith and George O. Bond, Air Corps, pilots, with the following passengers: Colonel Underwood, 33rd Infantry; Major Barnes, Jr., G.S.C.; Major Woodward, Air Corps; Captain Coyne, Finance Department; Captain Harry A. Kuhn, C.W.S.; Captain Lynn E. Brady, Infantry; Captain Donald C. Hill, Corps of Engineers; Captain Charles W. McGeehan, Coast Artillery Corps, and Captain James A. Durnford, Quartermaster Corps.

The flight maintained a direct route from Colon to San Salvador, arriving there at 11:30 a.m., four hours and 30 minutes after departing from France Field. The American Minister, the Hon. Robert Frazer, and staff of the American Legation, together with representatives of the government of San Salvador, formed the reception committee which was present at the airport. In due time the personnel were assigned to hotels in the city of San Salvador, and at the American Legation.

A formal reception was tendered the same day, April 19th, by his Excellency, President Martinez, of El Salvador, at 5:00 p.m. The American officers were presented to the President at this reception, and met the officials of the government, and pilots of the flying corps. This was followed by a buffet supper, which was served at the residence of the American Minister, and to which prominent Americans in San Salvador and officers of the Army of San Salvador were invited.

The flight took off from the airport at 9:30 a.m., April 20th and, after flying in formation over the City of San Salvador, headed toward San Jose, Costa Rica, arriving at the airport of Santa Ana at 11:45 a.m. The Secretary of the American Legation and officials of the Costa Rican Army were present to receive the officers of the flight.

At San Jose there was no reception by the Costa Rican Government, due to the fact that the President of Costa Rica was absent from the city. However, the American Minister, Hon. William H. Hornibrook, was host at a party for the members of the flight at the American Legation at 5:00 p.m.

April 21, 1938, was devoted to sightseeing and rest in the Capital of Costa Rica. Individual members of the flight were entertained by prominent Americans at their homes in and near San Jose.

The flight took off the next day at 9:30 a.m., and after passing over the city in formation headed east for the Panama Canal Zone, where all airplanes arrived by noon.

All members of the flight were greatly impressed by the kindness and consideration of all officers with whom they came in contact in El Salvador and Costa Rica. The Ministers and their Staffs were most cordial, and made every effort to make the members of the flight feel that they were welcome.

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RESERVE OFFICERS TO EXTENDED ACTIVE DUTY

The following-named second lieutenants of the Air Reserve were assigned to extended active duty at the Air Corps stations indicated:

Edgar Minton Wittan, of Portage, Pa., to Langley Field, Va., to May 3, 1941.

Willard Van Deman Brown, of Dallas, Texas, to Barksdale Field, La., to May 17, 1941.

William Grover Benn, of Washington, Pa., to Mitchel Field, L.I., New York, to May 15, 1941.

Wilcox Barnes Wild, of Olympia, Wash., to March Field, Calif., to May 15, 1941.

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The following-named Air Corps officers who are nearing the completion of their tours of foreign service, are under orders for duty at Air Corps stations in the United States, as indicated:

To Maxwell Field, Ala.: Captain Samuel W. Van Meter, from the Philippines.

To Randolph Field, Texas: 1st Lieut. Harold L. Mace from the Philippines.

To Mitchel Field, N.Y.: 1st Lieut. Maurice C. Bisson from the Hawaiian Department

To Randolph Field, Texas: 1st Lieut. Frederick N. Ott from the Panama Canal Department.

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Captain Leo H. Dawson, for a number of years on duty with the 1st Pursuit Group, Selfridge Field, Mt. Clemens, Mich., is under orders for duty at Mitchel Field, N.Y.

Major Lawrence A. Lawson, Air Corps, is under orders for duty at the Denver Branch of the Air Corps Technical School, Denver, Colo., upon the completion of his present course of instruction at the Advanced Flying School.

FAST GOING BY "FLYING FORTRESS"

The Second Bombardment Group, Langley Field, Va., has been a bee hive of industry these past few weeks incident to cleaning up the business of the Florida Maneuvers and preparing the hundreds of necessary details in preparation for the GHQ Air Force Maneuvers in the Northeast.

Routine training has not been neglected and, as in the past, the B-17's continue to break records under normal operating conditions.

On April 22nd, Lieut. Colonel Robert Olds, with a crew of three officers and five enlisted men, in a B-17 airplane, established a record flight from the West Coast to Langley Field. Departing from March Field, Calif., at 11:40 a.m., E.S.T., Colonel Olds reached his destination, Langley Field, at 10:35 p.m., E.S.T. His flying time from March Field to Langley Field was ten hours and forty-five minutes. His previous record for this same flight, established in February of this year, was eleven hours and one minute.

Enroute to March Field from Langley Field on a dawn-to-dusk flight, on April 19th, this same crew left Langley Field at 4:36 a.m., as dawn was lighting the eastern sky, and when at 2:03 p.m., Pacific Standard Time, Colonel Olds landed his Flagship #10, the same B-17 which he used on the flight to Buenos Aires, Argentina, the previous record for the East-West non-stop "hop" had not only been cut by a full hour to 12 hours and 27 minutes, but the projected dawn to dusk flight had become a breakfast to lunch accomplishment.

New auxiliary equipment and navigational technique were tested during both legs of this flight and proved eminently satisfactory.

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GRADUATION FROM SCHOOL OF AVIATION ORDNANCE

Describing the School of Aviation Ordnance at Langley Field, Va., as an important factor in the realization of a stronger national defense, Brigadier General Arnold N. Krogstad, the new Commanding General of the Second Wing, GHQ Air Force, on Monday, April 25th, presented diplomas to graduates of the two-months' course.

Fourteen students, including five non-commissioned officers and nine enlisted men, were awarded diplomas. They completed their studies the following Saturday. Twenty-three other students graduated in the first two courses held at Langley Field. The fourth course will begin on October 1, 1938, and continue through November 30th.

The graduates represented the various platoon divisions of the Ordnance Branch of the General Headquarters Air Force, including Langley Field; Barksdale Field, La.; Mitchel Field, N.Y.; Selfridge Field, Mich., and March and Hamilton Fields, Calif.

Awards were also presented the four instructors of the School, namely: Tech. Sergeant Robert F. Tokoly, Instructor of Ammunition; Staff Sergeant Francis E. Rogan, Instructor in Small Arms; Sergeant Fred Riley, Assistant Instructor in Small Arms, and T.L. Gaines, Principal Ammunition Inspector and Instructor in Ammunition.

Lieut. Colonel Russell L. Maxwell, Commander of the Tenth Ordnance Company; Captain Edward P. Mechling, Director of the School; Major Edison A. Lynn, 2nd Wing Ordnance Officer; Lieut. Colonel John A. Brooks, Jr., Assistant Commandant of the Ordnance Field Service, Raritan Arsenal, N.J., and Major Dache M. Reeves, Air Corps, were among those present at the graduation ceremonies.

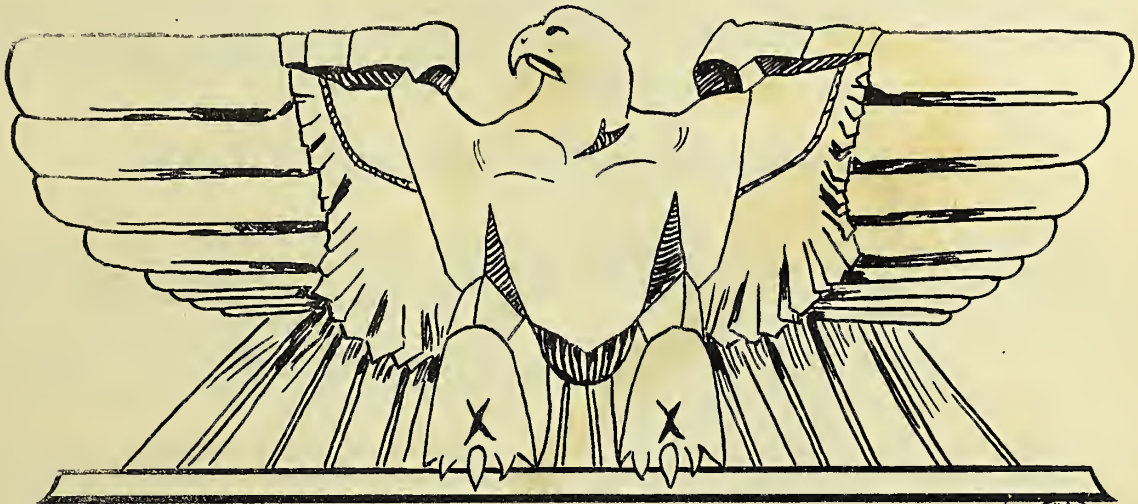
Those who received diplomas included Technical Sergeant F.V. Perritti; Staff Sergeant J.A. Dolan; Privates G.S. Shearin; E.S. Hahne, J. Blaum, 35th Pursuit Squadron, 8th Pursuit Group, R. V. Dimmig and J. Szuibeck, of Langley Field, Va.; Sergeant C.V. Ferguson, of Selfridge Field, Mich.; Corporal J.F. Givens and Private B.F. Hewitt, of Barksdale Field, La.; Corporal K.D. Rising, of Hamilton Field, Calif.; Privates G. Smith and J. Moore, of March Field, Calif., and Private W.E. Clarke, of Mitchel Field, N.Y.

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ACTIVITIES OF 1ST OBSERVATION SQUADRON

The 1st Observation Squadron, stationed at Marshall Field, Fort Riley, Kansas, was on the alert constantly during the period from May 2nd to 10th, utilizing all airplanes and pilots for day and night missions in connection with the Cavalry School's "Field Exercise Maneuver No. 1." Included in these activities were reconnaissance missions; liaison missions, using radio and dropped messages, and photographic missions, including shots of troops in action and photographs of each day's bivouac.

Three O-19 airplanes were flown to Offut Field, Fort Crook, Nebraska, on May 6th, to cooperate with the 61st Coast Artillery (Anti-aircraft) in a demonstration of defense against night air attack. Approximately 5,000 citizens of Omaha attended the demonstration, despite a heavy rain and low ceiling, which made it necessary to keep all but one airplane on the ground. During the hour in which he conducted simulated machine gun and bombing attacks on the populace, Lieut. G.L. Mason's conversation with the ground station, and other pertinent remarks, were rebroadcast over Station WOW, of Omaha, Neb. This provised the listeners-in with a most interesting program.



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VOL. XXI AIR CORPS NEWS LETTER NO. 11.

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The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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ROUND TRIP PANAMA FLIGHT BY THE CHIEF OF THE AIR CORPS

Major General Oscar Westover, Chief of the Air Corps, returned to Washington on Wednesday, May 25th, as scheduled, following a journey by air to the Panama Canal Zone, and reported a most enjoyable flight as well as a very interesting inspection of Air Corps activities there.

Enroute to Panama, General Westover stopped over at Kelly Field, Texas, on May 12th, for a brief visit with Colonel Frank D. Lackland, Commandant of the Advanced Flying School. He first landed at Randolph Field and had a short visit with his son, 2nd Lieut. Charles B. Westover, who is a student on the basic stage at the Primary Flying School. He then flew his special A-17AS Attack airplane to the San Antonio Air Depot, Duncan Field, Texas, for a thorough mechanical check before taking off at 2:00 p.m. for Brownsville, Texas, where he arrived an hour and 45 minutes later.

Remaining overnight at Brownsville, the General took off at 6:00 a.m. the following day (May 13th) for the Panama Canal Zone, via Tampico; Vera Cruz, where the plane was refueled; Minatitlan, Tehuantepec, Tapachula, and Guatemala City, Guatemala, where he remained overnight. On May 14th he flew to Managua, Nicaragua, and, after refueling at that point, continued on to David, Republic of Panama. After passing through several bad storms enroute, he decided to land at David to check for weather reports and, upon receiving partially favorable reports, started for Albrook Field. He proceeded for a distance of only about forty miles, however, when he found all chances of getting through blocked by severe thunder storms, heavy downpours of rain, and no visibility. He had no alternative other than to return to David, where he remained overnight, taking off early the next morning (May 15th) for Albrook Field, where he arrived at 9:00 o'clock.

In the afternoon, General Westover attended a reception given in his honor by the officers and ladies of France and Albrook Fields, and at which were also present the Governor of the Panama Canal, Colonel Clarence S. Ridley, and Mrs. Ridley; Major General David L. Stone, Commanding General of the Panama Canal Department, and Mrs. Stone, and Brigadier General and Mrs. Frederic H. Smith.

On May 16th, General Westover made an inspection of Albrook Field, and on the following day he inspected the field work and bombing practice at Rio Hato, also the proposed sites for new Air Corps installations. In the afternoon and evening of that day (May 17th) he began to suffer from an infection, the result of an insect bite he received while at David, and was confined to his bed for two days undergoing treatment.

On Friday, May 20th, General Westover inspected France Field and the Panama Air Depot thereat, returning to Albrook Field just before the heavy afternoon rains made flying impracticable. He spent Saturday in conference with the Department Commander (General Stone) and Brigadier General George H. Brett, Commander of the 19th Wing, relative to observations and conclusions reached by him as the result of his trip. He then made preparations for his return journey.

Leaving Albrook Field at 7:00 a.m., Sunday, May 22nd, and after refueling at Managua, General Westover arrived at Guatemala City, Guatemala, at about 1:00 p.m., where he spent a most delightful return visit. Speaking of Guatemala City, the General stated:

> "I consider this city very distinctive and worth while visiting by any person who is fond of travel."

On Monday, May 23rd, General Westover flew from Guatemala City to the San Antonio Air Depot, Duncan Field, proceeding via Vera Cruz, Mexico, where his plane was refueled, and the port of entry at Brownsville, Texas, where he cleared the customs and quarantine. He left his airplane at the San Antonio Air Depot for the usual 20-hour check. In the meantime, he learned that he had become a grandfather, so he lost no time in paying a visit to his grandson, who was born during the General's absence from the United States.

Leaving San Antonio on the morning of May 25th, the General arrived in Washington on the afternoon of that day. He was accompanied on this aerial journey to Panama and return by Staff Sergeant Samuel Hymes, his mechanic.

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Touching on some of the observations he made during the course of his round trip flight to the Isthmus, General Westover stated:

"Aside from the experience of flying over this very varied and interesting terrain on the general route followed by airplanes being ferried to Panama, I was able to observe the operations of the Pan-American Airways and to appreciate the hearty cooperation continually extended by that remarkable organization to Army pilots flying to and from the Canal Zone. At Managua I saw an airport, the buildings and installations on which I believe fully to be the equal of the best we have in the United States. I was particularly impressed with the government buildings on this airport.

"I found Guatemala City a most intriguing place, possessing a cleanliness which is outstanding, and police and municipal discipline was manifested to a degree which was not alone distinctive in character but reflected a high degree of civic pride and responsibility. Here I was also able to view a large topographical map of Guatemala which showed the volcanic peaks and the mountainous terrain of that country in a most picturesque and illuminating manner and caused me to appreciate the wisdom of flying a coastal route rather than to attempt to fly over these mountainous areas by dead reckoning without radio direction finder equipment in my plane.

"I found the Air Corps personnel at Albrook and France Fields apparently contented, happy and deeply interested in their work. The tactical units exhibited fine efficiency in their field operations and were highly complimented by me for the high standard of performance in administrative and tactical operations. Much is required in the way of new and modern facilities and equipment, all of which I shall hope to be of assistance in providing as the result of my better understanding of conditions obtaining in the Panama Canal Department."

While at Guatemala City, General Westover was the guest of Mr. Fay A. DesPortes, the American Minister, and Mrs. DesPortes; also the guest at dinner of Lieut. Colonel Victor W.B. Wales, Cavalry, and Mrs. Wales. He was extensively entertained during his stay in the Canal Zone, where he was the house guest of Brigadier General and Mrs. George H. Brett, the Wing Commander.

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The following named Air Corps officers, effective May 1, 1938, were given permanent promotions to the rank indicated, these officers holding temporary rank up to that date:

Lieut. Colonel Charles B. Oldfield
Major Carl F. Greene
Major Chilion F. Wheeler

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STARTER MOTORS

A memorandum Report (Serial No. U-54-254, dated April 15, 1938) of the Engineering Section, Air Corps Materiel Division, Wright Field, Ohio, prepared on a starter motor failure has a definite interest for all service activities. The failure of the starter motor, it was stated, was due to overheating of the armature commutator to such an extent as to soften the solder on the armature binding wire, allowing it to come off.

Recommendation was made that the Service be instructed to check over the starter and battery whenever it appears that more time is required than usual for energizing the starter flywheel.

"It is believed," says the Materiel Division Correspondent, "that the Service is familiar enough with the inertia starter to tell without the use of a tachometer when a starter flywheel is slow in coming up to speed. When this condition exists, the starter should be checked to determine if engine oil has leaked into the starter gearing and, if so, the starter should be changed. A starter free from oil should run four minutes before the flywheel stops turning when the initial speed of the flywheel is 12,000 r.p.m. An approximate check on this is sufficient. If the starter is found to turn freely, then the battery voltage should be checked while the starter is being energized. This voltage should not drop below 8.6 volts. The Materiel Division is working with the starter manufacturer to develop a fan-cooled starter motor which will eliminate overheating."

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MAYO CLINIC DOCTORS VISIT WRIGHT FIELD

Dr. W.M. Boothby and Dr. W.R. Lovelace, of the Mayo Clinic, Rochester, Minn., came to Wright Field during the latter part of April to consult with officers of the Physiological Research Laboratory on the problems of oxygen administration. Dr. Boothby is an expert on metabolism. The study of the two Mayo Clinic physicians was undertaken on behalf of commercial airlines. They expressed themselves as being much interested in the equipment and the results obtained in the Physiological Research Laboratory.

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Under Special Orders of the War Department, recently issued, Captain Louis M. Merrick, Air Corps, is relieved from assignment and duty as Instructor of the 43rd Division Aviation, Connecticut National Guard, Hartford, Conn., and assigned to duty at Mitchel Field, N.Y. He will be succeeded as Instructor of the 43rd Division Aviation by Major Jasper K. McDuffie, now on duty as student at the Air Corps Tactical School.

Major General Frank M. Andrews, Commanding General of the GHQ Air Force, took off at 3:00 p.m., May 17th, in his command plane enroute to Langley Field, Va., in the advance echelon as the war games concluded, and staffs and tactical units departed for home stations.

Prior to his departure, General Andrews expressed complete satisfaction with the handling of tactical units, the direction of the war games by the staffs, and emphasized particularly the excellence of supply and air base plans and results.

The GHQ Air Force Commander emphasized the fact that, despite the difficult flying schedules, involving more than 7,000 aircraft hours, much of which was at night and in uncertain weather, there were no accidents, the most serious damage to materiel being a bent propeller. No Army Air Corps officer or soldier suffered the slightest injury. "That, to me," said General Andrews, "is the happiest and most satisfying feature in connection with these war games. It also emphasizes the magnificent training and superb flying skill of the pilots in our Air Force, and it points unmistakably to the excellence of their equipment and the unequaled care with which maintenance crews performed their arduous duties, even under the stress of 24-hour service."

Prior to his departure, the GHQ Air Force Staff submitted to the Air Force Commander brief summaries of the operations conducted under the supervision of each branch. Lieut. Colonel Joseph T. McNarney, G-4, GHQ Air Force, submitted the following compilation of logistic figures:

Motor vehicles employed	400
Gasoline distributed (gals.)	400,000
Bombs distributed	2,184
Weight of bombs (lbs.)	260,000
Food distributed (tons per day)	10
Plane hours flown (operations only)	2,285
Plane miles flown (operations only)	340,254

Lieut. Colonel C.W. Lewis, Signal Corps, Signal Officer on the GHQ Air Force Staff, pointed out the results obtained in the first trials of a complete teletype communications system servicing widely separated units. Colonel Lewis pointed out that the teletype circuits involved 39 machines and 1,100 miles of wire. The average daily transfer of orders and information over this teletype circuit was 20,000 words, and the heaviest day of the maneuver found 30,000 words transferred over this system. He gave it as his opinion that the teletype-writer communications system had proved itself as a fast and reliable means of communications between ground establishments.

Asked to summarize the high lights of the maneuver, Colonel Walter H. Frank, Chief of Staff, speaking for General Andrews, pointed to the initial phase wherein three B-17 Flying Fortresses made a reconnaissance flight, locating a commercial vessel 776 statute miles at sea, employing celestial navigation, and the last phase of the maneuver, known as the "black-out" problem, or air raid drill, which was conducted successfully at Farmingdale, L.I., New York, on Monday evening, May 16th. Colonel Frank stated that the reconnaissance mission far to sea demonstrated the high state of navigational training which obtains in the GHQ Air Force. He was particularly enthusiastic about the thorough cooperation and excellent spirit demonstrated by the citizens in the Farmingdale area in cooperating with the Army Air Corps in the first air raid drill in America. "Definitely," said Colonel Frank, "we have learned from the air raid drill many things which will strengthen the air defense of the nation."

On the morning of May 18th, all remaining units of the GHQ Air Force began their return to their home stations, employing air transport. The 19 temporary air bases were expected to be completely abandoned by sunset of that day.

Haggard troops of "war" came home to Langley Field on Tuesday, May 17th, from the "battle zone," where men and planes from this station joined with others of the General Headquarters Air Force in defending the Northeastern section of the United States from attack by a "coalition of Asiatic and European powers."

Thirty airplanes and approximately 150 officers and enlisted men were included in the various contingents to return to the airdrome.

Leading one parade of returning air might was Lieut. Colonel Adlai H. Gilkeson, Commanding Officer of the 8th Pursuit Group, who was in front of 25 two-seater Pursuit planes which arrived at the Peninsula airdrome at 3:55 p.m., from Miller Field, New Dorp, N.Y., and Camp Dix, in New Jersey.

Major Caleb V. Haynes led six "Flying Fortress" Bombers, one Martin B-10 and one Pursuit ship home from Harrisburg, Pa., where the 49th Bombardment Squadron from Langley Field was stationed. Three of the four-engined "Flying Fortresses" which came home behind Major Haynes returned to Aberdeen Proving Ground, Phillips Field, Md., with Captain A.Y. Smith in charge, to ferry personnel and equipment of the Second Bombardment Group. He left Langley Field at 2:00 p.m., arrived at Aberdeen at 3:00 p.m., and returned to Langley Field at 4:00 p.m.

The Hamilton Field Correspondent reports that the commotion which was heard late in the afternoon of May 22nd was only the arrival of Hamilton Field's Air Force from the East Coast, where mimic warfare under the name of GHQ Air Force Maneuvers had been held for the past three weeks.

The arrivals consisted of four flights, totaling ten Douglas B-18 Bombers. Lieut. Colonel George E. Stratemeyer, Commanding Officer of the 7th Bombardment Group, and his flight of five planes; Major Lucas V. Beau, Jr., of March Field, Calif., attached to the 7th Bombardment Group for the duration of the Maneuvers, with a flight of three planes; Major Newton Longfellow, Commanding Officer of the 88th Reconnaissance Squadron, and 1st Lieut. Joseph J. Ladd, Assistant Engineering Officer of Hamilton Field, with one plane each. The planes were loaded to capacity with men and equipment from all squadrons of the field.

Their faces seemed extremely happy as they set foot upon the terra firma of their home station again. The ones who seemed the happiest, however, were the officers' wives, who had been anxiously telephoning the dispatcher's office all during the afternoon, requesting the time of their arrival and if any more news had been heard from them. The combination of real mattresses to sleep on, real civilized food to eat (no beans) and the beaming faces of loved ones to greet them made these warriors declare their appreciation of "Home, Sweet Home."

Arriving unannounced at Mitchel Field, N.Y., at 9:20 a.m. EDST on the morning of May 5th, flying his Northrop Attack plane, Major General Oscar Westover, Chief of the Air Corps, was met by the Base Commander of Mitchel Field, Lieut. Colonel T.J. Hanley, Jr., Air Corps, and immediately set out on an inspection of the preparations made at Mitchel Field for the direction of the most realistic maneuvers ever held by the GHQ Air Force, Mitchel Field being the nerve center of the exercises, with GHQ Air Force Headquarters, under Major General Frank M. Andrews, Chief of the GHQ Air Force, and Wing Headquarters, under Brigadier General Frederick L. Martin, already set up. This was General Westover's first stop on a two and one-half day inspection trip which was to take him to all the 19 airdromes in the maneuver area, where combat units of Bombardment, Pursuit and Attack airplanes were in the final stage of digging in before the start of the "war" on May 12th.

Before taking off an hour and a half later for his next stop at Farmingdale, L.I., General Westover made the following statement:

"Having an opportunity to observe the maneuvers of the GHQ Air Force on the West Coast last year at first hand, I am able to grasp quickly the essential features that characterize preparations for any Air Force exercise on a large scale. I was impressed, as a result of my brief inspection at Mitchel Field this morning, with the fact that the system being employed this year in troop movements, establishment of operating facilities, and rapidity of concentration is undoubtedly superior to any previously employed. I fully expect that the practicability of this year's plan will be confirmed by the results achieved when active operations commence. I wish to congratulate General Andrews and his staff as a result of what I have already seen."

Three Provisional Transport Squadrons brought to the maneuver area in 27 airplanes a total of 295 officers and men.

The First Provisional Transport Squadron, equipped with eleven bi-motored B-18 Douglas Bombers, flying from March Field to the East Coast, with stops at Biggs Field, El Paso, Texas, and Barksdale Field, Shreveport, La., included 33 officers and men of the First Wing Headquarters, 22 officers and men of the 17th Attack Group Headquarters, 22 officers and men of the 19th Bombardment Group, 20 officers and men of the 30th Bombardment Squadron and 22 officers and men of the 95th Attack Squadron. This Squadron, under the command of Major Paul Prentiss, Air Corps, proceeded to Schenectady, N.Y.; Groton, Conn., and Hartford, Conn., delivering officers and men to their unit airdromes at those cities.

The Second Provisional Transport Squadron, equipped with five bi-motored Douglas B-18 airplanes, in command of Major Newton Longfellow, Air Corps, flew from Hamilton Field, Calif., to Westfield, Conn., and Hartford, Conn., with a stop at Salt Lake City, Utah, and an overnight stay at Fort Riley, Kansas. The officers and men comprising the Squadron on this movement included 33 from the 7th Bombardment Group Headquarters and 22 from the 9th Bombardment Squadron.

The Third Provisional Transport Squadron, under the command of Captain E.A. Hillery, Air Corps, and consisting of eleven bi-motored Douglas C-33 airplanes, flew to maneuver bases at Camden, N.J.; Allentown, Pa.; Floyd Bennett Airport and Mitchel Field, N.Y., from Barksdale Field, La., stops being made at Maxwell Field, Ala., and Langley Field, Va. Officers and men participating in this movement included 33 from the Third Wing Headquarters, 22 from the 20th Pursuit Group Headquarters, 22 from the 13th Attack Squadron, 22 from the 55th Pursuit Squadron and 22 from the Third Attack Group Headquarters.

The three Wing Commanders of the GHQ Air Force, with their respective staffs, reached the maneuver area on May 3rd.

Brigadier General Delos C. Emmons, commanding the First Wing, set up his headquarters at New Haven, Conn.; Brigadier General Arnold N. Krogstad, commanding the Second Wing, at Middletown, Pa., and Brigadier General Frederick L. Martin, commanding the Third Wing, at Mitchel Field, N.Y.

Colonel Walter H. Frank, Chief of Staff of the GHQ Air Force, arrived at Mitchel Field on the afternoon of May 3rd in a B-18 Bomber from Langley Field, Va.

Seven members of Major General Andrews' staff arrived at Mitchel Field on the morning of May 4th, and included Colonel Walter G. Kilner, Assistant Chief of Staff, G-3, who was in direct charge of air operations; Lieut. Colonel Russell L. Maxwell, Ordnance Officer; Lieut. Colonel C.C. Drake, Quartermaster; Major Wm. W. Dick, GHQ Air Force Adjutant General; Major James P. Hodges, Assistant Chief of Staff, G-2; Major Walter Reed, Acting Assistant Chief of Staff, G-2; and Major C.C. Chauncey, Assistant to Colonel Kilner, G-3.

The system of communication, previously referred to, capable of handling five times the traffic of the previous system and of handling it far more quickly, was a teletype hook-up to enable General Andrews' Headquarters to communicate simultaneously with all units or to reach any unit individually without holding up messages on other circuits, a vitally important consideration with any air force, for two reasons; first, the mobility, which is a chief asset of an air force, can be largely lost if it cannot transmit its orders promptly; and, second, an efficient teletype system, replacing radio communication, releases use of the air for ground to plane and interplane communication.

Formerly, messages could not be transmitted faster than a man could type them on the machine. Under the new system, any number of messages can be punched out on strips of paper and held, like a pianola roll, until the line is open, when they are sent out by the machine at sixty words a minute. An instrument called a Perforator, a sort of message "storage box," will record a communication and hold it while right of way is given to a more urgent message. The Perforator then sends its delayed message through at the first opportunity.

During the course of the GHQ Air Force Maneuvers, General Andrews and his Staff arranged extensive tests of new portable field equipment, among them being a complete field lighting system, portable by air; a portable weather station; rolling photo laboratories; rolling gasoline tank car; sealed-in Air Food Containers; full feathering propellers (these can be stopped in the air to cut down wind resistance when one engine fails); photoflash bombs for night photography, and portable lifting jacks for heavy bombers.

The field lighting system consists of a gasoline generator for electric power, runway and obstruction lights, and an airport beacon. The entire unit packed in three boxes can be carried in one of the larger type airplanes and set up in a short time. Should it prove successful, it means that a Pursuit Squadron, which does not have landing lights on its airplanes because of the weight factor, can operate during war time from an unlighted field in a remote section where no electricity is available. Such a field would restrict or prohibit night flying if a portable field lighting system were not available, with a consequent loss of effectiveness and mobility to the air force. Ten sets of this equipment were made up for test and two special sets (these include the beacon, which compares favorably with permanently installed beacons).

The portable weather station consists of a truck fully equipped with meteorological instruments, weather maps and radio for reception of Bureau of Air Commerce broadcasts. A detachable mast is mounted on the truck's roof to place the windvane and anemometer, which measure wind velocity, high enough for accurate readings. Again, mobility is the issue, for without reliable weather forecasts a squadron's flying operations may be greatly curtailed - or conducted at unnecessary risk. In either case, the the advantage gained from the speed of the airplanes is largely lost.

The rolling photo laboratory, with developing and printing equipment installed in a trailer, towed by a 1½-ton truck, and constituting a portable photographic workshop, can hand the commanding officer of a reconnaissance squadron prints of an enemy airdrome within six minutes after the reconnaissance plane has landed from its mission.

No airplane is highly mobile without gasoline in its tanks, hence the test of a new method of furnishing fuel for widely dispersed squadrons. Arrangement was made with five leading oil companies for spotting tank cars on rail sidings within easy reach of government gas trucks, these in turn servicing the airplanes directly. The former system of "spotting" thousands of drums of gasoline at the sites to be used by squadtons in the field entailed a tremendous amount of work and curtailed mobility by tying down squadrons to those fields where fuel had thus been made available in advance. The employment of this system in the Maneuvers would have necessitated 5,540 drums of gasoline, representing a total weight of 2,515,000 lbs., being transported and rolled into place on the various airdromes, or 737 truckloads from the railheads.

ENGINEER OFFICERS BIG HELP TO MECHANICS

According to the News Letter Correspondent, the mechanics in the 63rd School Squadron, Kelly Field, Texas, consider themselves very fortunate to have a Squadron Commander and Squadron Engineering Officer who are experienced engineers and test pilots. The Squadron Commander is Captain Harvey F. Dyer, and the Engineering Officer, 1st Lieut. Harry S. Bishop. These two officers served together at the Hawaiian Air Depot. Lieut. Bishop was Station Engineering Officer at Luke Field prior to reporting for duty at Kelly Field.

Both officers are conversant with engineering and supply problems of the Air Corps, and it is a great help to the enlisted mechanics of the 63rd School Squadron to have such capable engineers and test pilots in the organization. The pilots quickly diagnose any engine, airplane or radio trouble, in flight, making the mechanic's work much lighter.

The 63rd Squadron has Attack airplanes which have most of the late types of Air Corps equipment.

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FUEL SERVICING TRUCK

The Type F-1 Fuel Servicing Truck has been standardized, according to the News Letter Correspondent at the Materiel Division, Wright Field, Dayton, Ohio. This truck is of the tractor-trailer type, and its capacity is 7½ tons. It is a six-wheel, six-wheel drive truck, with a rocking, self-aligning, interchangeable coupling mounted on the chassis frame for connecting the tank trailer. The semi-trailer is of the drop frame, tandem dual-wheel type, with a four-compartment, 4,000-gallon tank mounted thereon.

The tank is provided with emergency controls in accordance with the rulings of the Automotive Committee of the American Petroleum Institute. A self-powered dual pumping system consisting of the following equipment is provided on the trailer: gasoline engine, 10-14 h.p.; two segregators; two pumps; two strainers; two meters; two expansion (surge) chambers with pressure gauges; four hose reels, two of which are used for suction and two for dispensing; and all necessary valves and piping. The engine is enclosed by flame-proof, fire-resisting bulkheads.

The rear compartment, containing the pumping and the gasoline engine, is protected by an automatic CO_2 fire extinguishing system, which is actuated by sudden temperature rise or by explosion. Manual control is also provided.

The trailer is designed for a fuel dispensing capacity of 200 gallons per minute, 100 gallons per pump, but the system can be reworked to a capacity of 300 gallons per minute when the need arises. A lighting system makes night operation possible. In order that maneuverability by means of military trucks and tractors may be accomplished, a dolly is supplied which converts the semi-trailer to a full trailer.

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MEMORIAL FLIGHT ACROSS ISTHMUS OF PANAMA

On April 27, 1938, six airplanes from the 25th Bombardment Squadron, France Field, Panama Canal Zone, detached themselves and took up formation with a Pan-American Airways Douglas DC-3 passenger plane, flying from Albrook Field to France Field. Historical significance could be attached to this flight, for a passenger in the Douglas transport was Mr. Robert G. Fowler, who 25 years ago on that date, made the first airplane flight from the Pacific to the Atlantic side across the Isthmus of Panama. In 1913, Mr. Fowler flew a hydroplane across the Isthmus, landing off the point of what is now Fort Randolph. By this feat, he was the first man ever to have flown from the Pacific to the Atlantic ocean, non-stop.

The 35 miles between the two oceans took 57 minutes to cover. In attempting to beach his airplane after landing, minor damage occurred which became major damage to him, since there was not an airplane part within a distance of a thousand miles of him. The damage eventually cost Mr. Fowler $4,000, which sum had been offered to him by the Costa Rican government for an exhibition flight the following week. The repair of the damage itself cost $25.00.

"In this day and time, with large fields on each side of the Canal, military and civilian aircraft making the trip many times daily, we must not minimize the accomplishments of this first flight," says the Albrook Field Correspondent. "It took a man of exceptional ability and courage. It took tremendous preparation. It blazed the way for later craft, and so, Mr. Fowler, the pilot officers on duty in Panama salute you."

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Under Special Orders of the War Department, recently issued, Brigadier General James E. Chaney, Air Corps, upon the expiration of his appointment as Assistant to the Chief of the Air Corps, July 16, 1938, is relieved from assignment and duty at the Air Corps Training Center, Randolph Field, Texas, and assigned to the command of Mitchel Field, New York.

The appointment of Brigadier General George H. Brett, Air Corps, as Wing Commander, with the rank of Brigadier General, and his assignment to the command of the 19th Wing, Albrook Field, Panama

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We pilots were prone to think that because regulations require the use of oxygen in flights above 15,000 feet altitude, it is not necessary to resort to oxygen at lower levels than this. Perhaps many of us have come home, after having flown over the top from 10,000 to 12,000 feet for a considerable length of time, and have been informed later in the evening by our better halves or room mates that we were certainly allowing flying to get us down and that it was pretty tough to have to put up with one of those birds who takes his flying so seriously that four or five hours in the air would turn him into a perfect "Grouch."

Our retort in such cases has usually been: "Oh, it's just the noise of that motor that has deafened me; I can't hear a thing you say and, besides, it may have been something I ate."

Experience has recently shown, however, that such "grouches" were usually caused by lack of oxygen at high altitudes and not by any worry induced by weather conditions, fear of motor failure or the like.

Now, grouchiness is not our normal state, but it is reasonable to assume that in flying at high altitudes the oxygen supply has been insufficient and has rendered us abnormal in a psychological sense. An instance of this was recently brought to the author's mind when flying between two Army fields 400 odd miles apart. Weather conditions were excellent, both at the place of take-off and at the place of landing, but for 350 miles between these two fields, however, low clouds, dense rain and generally poor flying conditions under the clouds confronted our hero, so he promptly went over the top. This was not as simple as it sounds, for over the top meant an altitude of 12,000 feet - sometimes 13,500 feet - to avoid plunging through turbulent cloud-mountain peaks which were strewn along the way.

A rather strong wind was blowing across the course, which necessitated crabbing a bit to keep on the radio range beacon course. With the "N" (-.) signal droning in his ears and the cloud bank below his airplane, the boy pilot headed towards his destination. The drone of the radio range beacon signal became tiresome, so the radio was switched off and it was not until an hour later that it was switched on again to confirm the fact, or the hope, that the plane was still on its course.

When the radio was again switched on, the droning sound came in much stronger than it had before, but whether the signal was the "N" (-.) or the "A" (.-) signal it was almost impossible to determine. It was several minutes before the pilot was sure that he heard a -. instead of a .- signal. At this time the radio range beacon station was passed, and again the radio was turned off, as the pilot was quite sure of the compass course that he must fly in order to keep on the air line. It was one and one-half hours later when the radio was again turned on. This time, however, it was absolutely impossible to determine whether the .- or the -. signal was sounding in the earphones. There were two notes, one following the other. The pilot was quite uncertain as to which was the dash and which note was the dot.

It was not until he had purposely turned from his course and had gotten quite a distance off the radio range or away from the twilight zone that his dulled conception made the signal evident to him.

The pilot had never before experienced any trouble in distinguishing between the -. and the .- signal, so he assumed that the fact that he was flying at between 12,000 and 13,000 feet altitude for several hours without oxygen was the cause of so dulling his senses.

Two days later, the pilot subjected this theory or assumption to the test, for on the return to his home station he purposely went aloft to the same altitude, used oxygen, flew around for three hours at that altitude, and had no trouble at all in readily distinguishing between these two signals.

What the pilot learned in this case was that oxygen is quite necessary for long flights below 15,000 feet as it is for shorter flights above 15,000 feet.

Circular No. 17, War Department, March 28, 1938, amending paragraph 29a of Army Regulations 95-15, states:

"a. Except in urgent, unforeseen emergencies, all personnel will use artificial oxygen at all times while participating in flights above 15,000 feet. Artificial oxygen will also be used when remaining at an altitude below 15,000 feet but in excess of 12,000 feet for periods of two hours or longer duration and when participating in flights below 12,000 feet but at or in excess of 10,000 feet for periods of six hours or longer duration."

In an article on the subject of Aviation Medicine, published in the March issue of the Journal of the Aeronautical Sciences, Captain Harry G. Armstrong, Medical Corps, of the Physiological Research Laboratory, Air Corps Materiel Division, Wright Field, Ohio, states that operation at the higher altitudes produces a condition of oxygen want in the body; that oxygen is the most vital of the bodily requirements, and that while the lack of food and water may be

tolerated for days, oxygen must be supplied almost continuously and in adequate amounts, for the body only carries a reserve of approximately 400 cc., sufficient for about 1¼ minutes.

As one ascends above sea level, the atmospheric pressure becomes less, and consequently the partial pressure of oxygen becomes less. This change is such that the partial pressure of atmospheric oxygen is reduced by one-fourth at 7700 feet; one-half at 17,980 feet and three-fourths at 33,000 feet.

From the figures given by Captain Armstrong, it may be assumed that in flying between 12,000 and 13,500 feet without oxygen, the partial pressure of atmospheric oxygen is reduced by approximately one-third.

Captain Armstrong goes on further to say that oxygen-want acts very much like alcoholism. In most cases the more one is affected the better one feels. It affects judgment and memory and one who is under its influence is not responsible for his actions or for his subsequent statements. "It is regrettable," he says, "that oxygen-want is not an extremely painful process."

Explaining that from the strictly medical standpoint the specific altitude above which oxygen should be administered to pilots cannot now or can it ever be answered by a single, simple statement, Captain Armstrong states that it varies with the individual, the altitude at which he resides, the rate of climb, the duration of the flight, the frequency of flights, and the lapse of time since a previous flight at altitude.

At the Materiel Division it has been determined that the effect of oxygen-want is not only proportional to the altitude but also to the time spent at any altitude. It has been determined that flights of long durations at altitudes as low as 8000 feet have produced a profound fatigue which requires 48 hours for recovery. Other studies at the Materiel Division which are not yet complete indicate that relatively mild degrees of oxygen-want are much more serious than was previously thought and that it is certainly one of the most prominent causes of pilot fatigue.

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OBSERVANCE OF NATIONAL AIR MAIL WEEK

In the observance of National Air Mail Week, May 15th to 21st, the San Antonio Air Depot, Duncan Field, Texas, as one of the large Air Corps Depots, was glad to enter whole-heartedly. On National Air Mail Pick-Up Day, May 19th, the San Antonio Post Office dispatched eight airplanes, piloted by prominent San Antonians engaged in aviation, to various towns in its surrounding feeder areas to pick up air mail for transmission throughout the nation. One of these trips was to the Army stations in the vicinity of San Antonio, and this airplane, piloted by Jack Beretta, landed at Duncan Field on the afternoon of the 19th. An enormous amount of air mail was collected at this station for this trip and bore a Duncan Field insignia stamp. This was first deposited at the South San Antonio Post Office for special cancellation, and was then returned to the Field, to be picked up by the plane, by Mrs. C.S. Fowler, Postmistress of South San Antonio, accompanied by a group of South San Antonio school girls who had contributed essays in a recent statewide air mail contest.

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AIR LIAISON INSTRUCTION IN PHILIPPINES

For the past few weeks, officers from Corregidor, Stotsenburg, McKinley and Santiago, Philippine Islands, at the rate of about six per week, have been attached to the 2nd Observation Squadron, Nichols Field, P.I., for liaison instruction. They were given Observation Squadron instruction the first three days and Bombardment for the last three. In general, the instruction involved organization equipment and training objective of Air Corps units in the Philippine Department, care and maintenance of parachutes, organization, equipment and training objectives of Observation and Bombardment Aviation, to include air observation and bombardment missions for those officers desiring to participate in aerial flights, and the use of photographic equipment. The last day was usually devoted to a group of tactical exercises in which the ground officers acted as observers.

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ANNIVERSARY OF DEDICATION OF CHAPEL

The third anniversary of the dedication of the Langley Field post chapel will be observed on June 19th with a special ceremony by Chaplain Silas E. Decker of the Air Base.

Appropriate ceremonies have been planned for the occasion, and the principal address will be made by Colonel Alva J. Brasted, Post Chaplain of Fort Belvoir, Va. Chaplain Brasted, former Chief of Chaplains of the United States Army, dedicated the Langley Field Chapel on June 16, 1935.

The Langley Field Chapel is one of the most modern in the entire United States Army. The architectural design of the structure makes it imposing and stately. It was built at a cost of $110,000, and is located on Dodd Boulevard, one of the main thoroughfares of the airdrome. Religious worship for both Protestants and Catholics is conducted each Sunday morning and, in addition, a Sunday

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THE GHQ AIR FORCE MANEUVERS

By Harris B. Hull

Reprinted from the "Sperryscope."

The most realistic air exercise ever conducted by the U.S. Army were held in May, when more than three thousand officers and men of the General Headquarters Air Force flew into New England, converted twenty commercial airports into temporary military operating bases, and "defended" the Atlantic Coast from an "enemy" attack.

Someone has characterized these extensive maneuvers as "war games." But when Army Pursuit, Attack and Bombardment planes assembled from all over the country fly nearly a million and a half miles, transport three million pounds of materiel, and then simulate a wartime situation full of long, hard flying missions operated during the day and at night, in good and bad weather, it must be admitted that this is no "game."

The success of the 1938 summer maneuvers is well known to almost every newspaper reader. Difficult missions were completed on split second accuracy. And happily there were no accidents. At the conclusion of the exercises every officer and man from Major General Frank M. Andrews, commanding, to the youngest enlisted soldier could well afford to feel proud that he had played some part. On all sides, from official and from private sources, came congratulations of a job well done.

Almost as interesting and just as important as the conduct of the actual maneuvers was the assembly of the GHQ Air Force from home stations to the temporary "war" bases. From the west came Brigadier General Delos C. Emmons and his First Wing. Up from Langley Field came Brigadier General Arnold N. Krogstad with his units, including the famous "Flying Fortresses." Brigadier General Frederick L. Martin led his Third Wing from the South.

The northern sector of the New England area was taken over by General Emmons' Wing, with headquarters at New Haven, Connecticut, and with tactical units based at Hartford and Groton, Conn.; Westfield, Mass.; Schenectady and Albany, New York. General Krogstad's Second Wing operated in the South with headquarters at Middletown, Pa. Units of the Second Wing operated out of Lancaster, Allentown and Harrisburg, Pa.; Aberdeen, Md., and Camden, New Jersey. General Martin's Third Wing occupied the center sector with headquarters at Mitchel Field, Long Island, and with units located at Farmingdale, Grumman Field, Roosevelt Field and Floyd Bennett Airport on Long Island; Miller Field on Staten Island, and Camp Dix, New Jersey. With the GHQ Air Force installed at these unfamiliar airports, a detailed "General Situation" was announced and defense plans started.

Briefly, the tactical situation presented to General Andrews and his staff officers at Mitchel Field was this:

"War exists between a coalition of Asiatic and European powers, Black, and the United States, Blue. Canada and Mexico are neutral. The Blue Main Fleet based on Hawaii, is engaged in defensive operations in the Pacific; Blue naval forces in the Atlantic are sufficient for coast patrol. The GHQ Air Force is ordered to concentrate in the New England area. The fleet of a European power, a member of the coalition, is escorting troop transports. Information indicates this force intends to attack in the New England area."

At the outbreak of "hostilities" it was apparent to General Andrews that more detailed information of the "enemy" was needed immediately. To obtain this, three of the "Flying Fortresses" were dispatched on a 1,500-mile non-stop reconnaissance flight out over the Atlantic.

This impressive flight, conducted under adverse weather conditions to a dot in the Atlantic Ocean, 750 miles at sea, proved to be one of the most interesting phases of the maneuvers. Without advance notice, Major C.V. Haynes and Captains Cornelius Cousland and A.Y. Smith were ordered to take off in their four-engined Boeing Bombers and conduct this mission. As there was no real enemy lurking out in the Atlantic, it was decided that the pilots should find the entirely friendly Italian liner REX, which was proceeding to New York. Certain sketchy information concerning the REX's course was given to the navigators, and out to sea they flew in land-type airplanes on a flight unprecedented in Air Corps history. The trackless wastes of the Atlantic were rain-swept as the big "Fortresses" thundered on for four hours. The navigators saw their instruments "hit the roof" as the "bottom dropped out" when line squalls and wind shifts were encountered.

Yet under these handicaps they navigated accurately, for after four hours of flying, the REX was sighted at "Twelve o'clock," which means "dead ahead" or "right on the nose." Having found the REX, the three bombers circled the ship, Major George Goddard, ace Air Corps photographer, taking a picture of the big liner with two of the bombers shown flying beside her. Needless to say, the passengers and crew of the REX were surprised to see giant planes circling overhead.

The mission completed, Major V.J. Meloy, Group Executive Officer, called Captain Attilio Frugone of the REX on

V-7749, A.C.

the radio and exchanged greetings. With true Italian courtesy, the REX's Captain invited Meloy to luncheon. However, as the "Fortresses" are land planes, Major Meloy declined with thanks and ordered the planes to proceed back to Mitchel Field.

Adverse weather conditions were encountered again on the returning flight, but the big ships arrived home on schedule with enough gasoline left for several more hours of cruising.

Second in interest only to the long range reconnaissance flight was the "Blackout" of Farmingdale, Long Island. Although "Blackouts" frequently are practiced abroad in order to make it difficult for approaching bombers to "spot" their targets, none ever has been held in the United States. As Farmingdale is the home of the Seversky and Grumman airplane factories and is therefore a typical target for hostile bombardment, it was chosen for this air raid drill.

In other "Blackouts" drills main switches have been pulled at the power houses and areas darkened. In the Farmingdale drill, however, it was decided to solicit the cooperation of civic authorities and to request that lights be turned out voluntarily in each home and place of business. Incidentally, this plan was decided upon when an officer remembered that in a recent European "Blackout," when switches were pulled, a surgeon was just ready to operate. The operation was performed with considerable difficulty.

The officials and residents of Farmingdale responded to the air raid drill with enthysiastic cooperation. When the bombing planes were heard approaching, the warning was given by siren and radio, and out went Farmingdale's lights.

"We couldn't see anything," one pilot said later. "It might just as well have been a wheat field at midnight in Texas. We thought that when the residents of Farmingdale turned out the lights we would be able to find the city, as we expected that the other nearby towns would be well lighted. But apparently everyone lived in Farmingdale the night of May 16, or else they just decided to make it hard for us. Because everyone for miles around had his lights off."

Groping through the night, unable to find Farmingdale, the pilots of the bombers dropped flares. These turned out to be a help to the defending Pursuit units which immediately were dispatched from Seversky Field, object of the bombing raid. The Bombers were spotted as they criss crossed Long Island searching for the aircraft factories. No bombs were dropped, of course, the pilots agreeing that had the aircraft factories been an actual target, it would have been difficult to know when to do their bombing.

During any maneuver problem such as the GHQ exercises, the spotlight of interest naturally falls on the actual flying missions on which officers and men work out simulated war problems. However, the staff at General Andrews' headquarters was equally interested in observing and studying the supplementary ground equipment, some of which were undergoing the first field trials. In the final analysis, an air force can have the finest airplanes and the best pilots, but unless the supply system, the communications net, the field lighting equipment, and many other pieces of field equipment have mobility, the airplanes cannot be flown efficiently. During the May maneuvers the GHQ tried out its new communications net. This features a teletype hook-up which enables commanding officers to communicate simultaneously with all units or to reach any unit individually without holding up messages on other circuits. As a result, the air can be used exclusively for ground-to-plane and interplane communication.

Formerly, messages could not be transmitted faster than a man could type them on a machine. Under the new system, any number of messages can be punched out on strips of paper and held until the line is open, when they are sent out at sixty words a minute. This is accomplished through the use of an instrument called a "Perforator" which serves as a sort of message "Storage Box."

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Ordnance arrangements under Lieut. Colonel Russell L. Maxwell, the GHQ Ordnance Officer, played an important part in the maneuvers. The largest complement of ordnance personnel and stores ever used in peace time air exercise were employed. Shortage of ordnance materials in the past has made it necessary for tactical units on maneuvers to use sand-filled practice bombs and a limited load of high explosive bombs. In the May maneuvers full loads were carried on many missions.

Instead of 100-pound practice bombs representing 1,100-pound demolition bombs actual bombs were carried, sizes varying from the 25-pound fragmentation bomb employed by attack, the 100-pound practice

and high explosive bomb, the 300-pound practice bomb and the 600-pound high explosive bomb to the 1,100-pound demolition bomb.

In addition to arrangements for bombing, Colonel Maxwell, as Ordnance Officer of the GHQ, was required to provide aerial and anti-aircraft machine gun ammunition, ball and tracer machine gun ammunition, ballistic data for bombsights, distress, signal and parachute flares, as well as many other types of ordnance equipment.

Tactical phases of the maneuvers completed on May 17, after a five-day "war," General Andrews ordered an aerial assembly at West Point, New York. High above the Military Academy the Army planes assembled and then formed a line which flew over Mitchel Field in salute to the Commanding General and his staff, which consisted of Colonel W.H. Frank, Lieut. Colonel Ralph Cousins, Major James Hodges, Colonel W.G. Kilner and Lieut. Colonel Joseph McNarney.

The last of the planes gone and on their way to their home stations, officers at Mitchel had an opportunity to inspect the giant XB-15, a new Bomber built by Boeing for the Army. This ship, largest land plane ever built in this country, is the latest development in long range Bombardment aircraft. In coming maneuvers, planes of this type are almost sure to play an important part in increasing the range of reconnaissance flying even farther than was achieved by the "Fortresses" on their flight out to the REX.

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19TH WING GREETS DEPARTMENT COMMANDER

Twenty-seven airplanes from the 19th Wing flew a greeting formation on April 27th, last, on the return of Major General David L. Stone, Commanding General of the Panama Canal Department, who had been in the States for two months undergoing examination and treatment at the Walter Reed General Hospital.

"We are glad to have him back with us in such good health," comments the News Letter Correspondent.

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FLIGHT HAZARD REMOVED FROM DUNCAN FIELD

"It was with great satisfaction," reports the News Letter Correspondent from the San Antonio Air Depot, Duncan Field, Texas, "that authority was recently received from the Quartermaster General for removal and sale of the Lower Water Tank at this Depot. This tank, which stands on a 138-foot steel tower, is located at the junction of two branches of the new airplane runway at Duncan Field and has long constituted a serious flight hazard."

TRANSPORT PLANES FOR THE MANEUVERS

In the recent GHQ Air Force Maneuvers on the East Coast, the San Antonio Air Depot, Duncan Field, Texas, loaned its two C-33 transports, with crews, for duty with the 3rd Provisional Transport Squadron, one for the initial concentration, April 30th to May 8th, and the other for the final evacuation, beginning May 17th. The first crew was composed of Lieut. L.P. Kleinoeder, pilot; Lieut. C.B. Collier, co-pilot, and Staff Sgt. W.M. Cornell, mechanic. The second crew consisted of Lieut. P.S. Blair, pilot; Staff Sergeant F.O. Tyler, co-pilot, and Staff Sergeant G.L. McCollum, mechanic. These men reported a very interesting and instructive, as well as an exciting experience on this duty.

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LANGLEY FIELD CHAPEL (From Page 8)

School provides religious instruction for the children of the Post.

The chapel has a large vested choir and an expensive pipe organ.

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CHANGES AFFECTING A.C. GENERAL OFFICERS
(Continued from Page 6)

Canal Zone, terminating on October 29, 1938, he is assigned to duty in the Office of the Chief of the Air Corps, Washington, D.C., upon the completion of his present tour of foreign service.

Brigadier General Barton K. Yount, Air Corps, is relieved from command of the 18th Wing and from further duty at Hickam Field, Territory of Hawaii, and assigned to the command of the Air Corps Training Center, Randolph Field, Texas.

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Previous orders assigning Lieut. Col. Benjamin G. Weir, upon the expiration of his tour of duty in Panama, to March Field, Calif., have been amended, and he is assigned to duty in the Office of the Chief of the Air Corps, Washington, D.C.

The following-named Air Corps officers, upon completion of their present course of instruction at the Air Corps Tactical School, Maxwell Field, Ala., are assigned to duty, as follows:

Major Kenneth McGregor with the Organized Reserves, 5th Corps Area, Schoen Field, Indiana.

Captain Clifford P. Bradley with the Organized Reserves, 9th Corps Area, Seattle, Wash.

Captain Cecil E. Henry to the Office of the Chief of the Air Corps, Washington, D.C.

1st Lieut. Minton W. Kaye to the Hawaiian Department.

1st Lieut. Robert L. Schoenlein to the Philippine Department.

RANDOLPH FIELD OBSERVES AIR MAIL WEEK

By the News Letter Correspondent

Randolph Field is the West Point of the Air. Perhaps at no other place are there as many persons so vitally interested in all phases of flying. This interest is not confined to the Air Corps personnel stationed here, but is evidenced by all persons residing here. The school children are particularly enthusiastic. The beauty of Randolph Field enhances this interest in flying. No person can live here without becoming imbued with the spirit of aviation's pioneers. Visitors viewing our Field for the first time catch a glimpse of this spirit, and attempt to express to whomsoever is at hand the emotion that they feel. They are proud to be a part of the nation that has made the West Point of the Air what it is - the greatest institution of its kind in the world.

Air Mail Week was appropriately observed by our personnel. To Mr. Fred A. Benedict, the Randolph Field Postmaster, should go the greatest credit for the work he accomplished to interest our personnel in Air Mail. Preparations were made for a special Air Mail Plane to land at Randolph Field on May 19th to pick up outgoing Air Mail. Mr. Benedict prepared a special cachet for canceling air mail stamps on this date. Hundreds of letters were received from all parts of the United States, to be mailed on May 19th, in order that they may bear this special cachet. Letters mailed at Randolph Field were to travel by air to all parts of the world.

Through the cooperation of the Post School, Mr. Benedict conducted a contest offering prizes, which he personally provided, to school children who submitted the best posters advertising the United States Air Mail. Fifty-five children submitted drawings. The posters were excellent. Even after several children's drawings were eliminated, due to unauthorized assistance by over enthusiastic fathers, the judges had such great difficulty in selecting the winners that Mr. Benedict felt compelled to award two additional prizes.

Miss Nova Jane Wiley, daughter of Staff Sergeant Eugene Wiley, of the 46th School Squadron, was awarded first prize. She received from Mr. Benedict a large coupon book of tickets to the War Department Theatre. Miss Shirley Brown, sister of Lieut. J.K. Brown; and Miss Jane Lenow, daughter of Captain C.B. Lenow, each won honorable mention and a prize of tickets to the War Department Theatre for one week.

In the group of posters submitted by children below the 4th grade, Miss Mary Delma Grabsky, daughter of 1st Sergeant Walter Grabsky, won first prize, a small War Department Theatre coupon book. Miss Willie Sue Carroll, daughter of Staff Sergeant William Wilson, and Master J.B. Rosser, son of Staff Sergeant J.C. Rosser, 46th School Squadron, won honorable mention and tickets to the War Department Theatre for one week.

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72ND SQUADRON MOVES TO HICKAM FIELD

April was moving time for the 72nd Bombardment Squadron, Luke Field, T.H. It was a busy period of transition of personnel and equipment from Luke to Hickam Field, the Army's newest and largest air field. Situated on the mainland, only ten miles from Honolulu, it will be accessible and, when completed, it will be the finest field of its kind anywhere.

The new hangars are large, light, airy and cool at all times, with the very latest equipment available in all departments. The offices are especially bright and well laid out, with a multitude of windows and door space assuring accessibility and fine working conditions. It is up-to-date in every way.

The Squadron took over 5 B-18's from the 31st Bombardment Squadron, and with all the ships in commission operations are now rapidly approaching their usual status.

The following officers have been assigned or attached to the Squadron in the new home: Major Harold L. Clark, Captain Charles B. Stone, Lieuts. Stranathan, Karnes, Mundell, Clark, Anderson, Walker, Leber, Gorman, Alness, Randolph and Lindsay.

Now that all the equipment has been moved over, work will progress rapidly under ideal conditions. As soon as the barracks are completed at Hickam Field, the last obstacle will be removed and the Squadron will be completely ensconced in its new home.

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FIELD TRAINING FOR 82ND OBS. SQUADRON

The 82nd Observation Squadron, Moffett Field, Calif., will go into field training camp in June. The camp site will be located near the ocean and close to colorful Monterey, Calif. "Besides satisfying the purpose of the camp," says the News Letter Correspondent, "we have selected one of the most beautiful spots on the coast of California, and along with our training there we are hoping for plenty of fishing and swimming, deep-sea.

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Fifty Reserve officers came to Wright Field, Dayton, Ohio, on Sunday, May 1st. Following a tour of the flying line, a lecture, illustrated with moving pictures, was given by Major Carl F. Greene, Chief of the Engineering Procurement Branch.

Forty members of the Cincinnati Gyro Club visited the field on May 5th.

LOW-MOUNTED GUNS PERMIT GREATER ACCURACY

By 1st Lieut. Norman H. Ives, Air Corps

A recent issue of the Air Corps News Letter contained the following statement making indirect reference to the comparative accuracy of Pursuit gunnery with guns mounted some distance below the sight, as in a P-26, and guns mounted up close below the sight:

"Due to the fact that boresighting plays such an important part in the firing of the guns mounted on a P-26A airplane and the range at which fire is delivered is so great, phenomenal results have not as yet been accomplished. 'We hope,' says the News Letter correspondent, 'the new airplanes with guns mounted close to the sights will give much better results.'"

It is evident that the writer of the above is under the impression that the vertical distance of 34 inches between guns and sight on the P-26 airplanes is a serious handicap and contributes to the inability of the P-26 pilots to accomplish "phenomenal results." If better scores are made with airplanes on which the guns are mounted nearer the sight, it will not be because of that lesser distance between guns and sight, but in spite of it.

Contrary to general opinion, far greater accuracy at the medium and long ranges may be obtained by mounting the guns from 30 to 35 inches below the sight than can possibly be obtained by mounting the guns from 10 to 15 inches below the sight. If a bullet traveled in a straight line, then it would be very desirable to mount the guns as close under the sight as possible. However, due to the fact that a bullet has considerable drop at the ranges now used by Pursuit, greater vertical distance between the guns and sight permits greater accuracy through a much longer range.

A bullet fired horizontally from a gun mounted 34 inches below the sight and harmonized for a range of 500 yards travels within 6 inches of the line of sight for a distance of 352 yards; from 186 yards out to 538 yards. If the gun is only 11 inches below the sight, and the gun and sight are harmonized for 500 yards, the bullet will travel within six inches of the line of sight for only 86 yards; from a range of 444 yards out to 530 yards. Therefore, the P-26 pilot can fire at any range from 186 yards out to 538 yards, aiming at the center of the bull'e-eye, and the bullets will never deviate more than six inches from the line of sight. The pilot of an airplane which has the guns mounted only 11 inches below the sight must fire between 444 yards and 530 yards in order to keep the center of impact within six inches of his point of aim.

The above information was obtained by carefully plotting, on graph paper, the trajectories and sight lines for both installations. In plotting the trajectories, the drop of a caliber .30 M1 bullet fired horizontally from a Browning Aircraft Machine Gun was corrected for an airplane speed of 200 miles per hour. Obviously, a bullet fired horizontally from a stationary mount will have considerably more drop than a bullet fired forward parallel with the flight line of an airplane flying 200 miles per hour. For example, fire control tables 0.30-A-1 and 0.30-C-2 show that a caliber .30 M1 bullet fired horizontally from a stationary mount has a drop of 83 inches at 500 yards. Correcting the drop for a speed of 200 miles per hour, using ranges obtained assuming that the increase in range equals three times that due to increase of 100 f.s. muzzle velocity, it is found that the bullet has a drop of only 63 inches at 500 yards.

According to the graphs, a bullet fired from a gun 34 inches below the sight and harmonized at a range of 500 yards, intersects the line of sight at 250 yards and again at 500 yards. At 186 yards the bullet is 6 inches below the sight line; at 200 yards, 4.2 inches below; 300 yards, 4.2 inches above; 400 yards, 5.7 inches above; 538 yards, 6 inches below; and at 600 yards the bullet will strike 14.6 inches below the point of aim. A bullet fired from a gun mounted only 11 inches below the sight and harmonized for 500 yards, intersects the line of sight at 88 yards and again at 500 yards. At 200 yards, the bullet is 9.6 inches above the sight line; at 300 yards, 13.5 inches above; 400 yards, 10.2 inches above; 444 yards, 6 inches above; 530 yards, 6 inches below; and at 600 yards the bullet will strike 19.3 inches below the point of aim. The above measurements of the distance between trajectories and lines of sight, taken from the graphs, are accurate within one inch. The center of the bull was used as the point of aim for both installations.

Incidentally, if trajectories and lines of sight are plotted for the different ranges and ammunition used by Pursuit, using both the center of the bull's-eye and the bottom of the bull as the point of aim, it will be found that in some cases aiming at the center of the bull will insure greater accuracy through a longer range, and in other cases if the bottom of the bull is used as the point of aim, better results will be obtained. The desired point of aim must be used when installing and harmonizing the guns and sight, and then carefully used by the pilot when firing.

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ENLISTED MEN SELECTED AS FLYING CADETS

Thus far, nine enlisted men of the Regular Army have been selected for appointment as Flying Cadets (five from the Air Corps and four from other branches of the service), and they are under orders to report at the Air Corps Primary Flying School, Randolph Field, Texas, for assignment to the July, 1938, Class.

The Air Corps enlisted men are:

Pvt. William R. Cullen, 96th Bomb. Sq., GHQ Air Force, Langley Field, Va.

Pvts. Kenneth A. Beatty, 3rd Weather Sq., and Harry G. Libbey, Jr., Base Hq. and 6th Air Base Sq., GHQ Air Force, Barksdale Field, La.

Pvt. Hugh M. Bargasses, 5th Air Base Sq., Hamilton Field, Calif.

Pvt. John I. DeVine, Jr., Base Hq. and 4th Air Base Sq., GHQ Air Force, March Field, Calif.

The enlisted men (Privates) from other branches of the military service are:

James D. Moytl, Hq. Battery, 11th Coast Artillery, Fort H.G. Wright, New York.

Maurice Barton, Det. Medical Dept., Station Hospital, Fort Benning, Ga.

Thomas G. Swift, Station Hospital, Fort Logan, Colorado.

Franklyn T. Green, Hq. and Service Co., 2d Engineers, Fort Logan, Colorado.

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CONTACT COURSE FOR TECH. SCHOOL STUDENTS

Thirteen Air Corps officers, now undergoing the course of instruction in Airplane Maintenance at the Air Corps Technical School, Chanute Field, Ill., arrived at Wright Field, Dayton, Ohio, for a contact course from the 9th to the 15th of May. Inspection trips were made to the various laboratories, hangars, shops, and final assembly building. Lieut. R.J. O'Keefe was the officer in charge. Other officers in attendance were Captain Z.C. Hopkins, Lieuts. C.E. Hughes, T.C. Odom, C.F. Damberg, C.P. Dougher, F.G. Jamison, B.W. Armstrong, R.M. Montgomery, B.E. Brugge, J.C. Shuck, L.S. Fulwider and C.B. Harvin.

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TACTICAL SCHOOL STUDENTS IN PAPER WAR

During the middle of May, with the annual gunnery and bombing C.P. exercise practice over, the students and faculty members of the Air Corps Tactical School and enlisted men returned to Maxwell Field, Ala., from the sub-station at Eglin Field, Valparaiso, Fla. The bombing and gunnery "paper war" problems are held each year at Eglin Field as a routine part of the Tactical School training course. This year, about 76 students, 14 faculty members and about 120 enlisted men took part. Transportation between the two posts consisted of six Army trucks, a fleet of private automobiles and 35 airplanes.

A NEAR CAT - ASTROPHE ON "JINX" DAY

"Friday, May 13th," says the News Letter Correspondent, "dawned clear and warm at Maxwell Field, Ala. Among others who take lightly the tales of misfortune connected with Fridays the 13th is Colonel Jacob H. Rudolph, Air Corps, President of the Air Corps Board at this station. On this particular morning, Colonel Rudolph mounted a trusty BT-2, intending to practice a little instrument flying. He had as his safety observer Master Sergeant George Mendel.

A few minutes after the take-off and before closing the cockpit hood, the Colonel felt a definite stiffening of the control stick. A further attempted movement indicated something was amiss. The controls were jammed!

Being only a few hundred feet off the ground, the situation was a very serious one. Glancing toward the rear cockpit, he was further surprised and dismayed by the apparent emptiness of the rear cockpit. The safety observer was nowhere in sight. Struggling with the controls, he managed to keep the ship from diving into the ground and succeeded in gaining a little more altitude. "To jump or not to jump" was the question. Before a decision to abandon the ship, however, had been made, he felt a slight jar on the stick and a lurch of the ship forward. Glancing quickly to the rear, he saw Sergeant Mendel's head 'pop' up and at the same time the control stick became free and the old BT resumed normal flight. A big grin spread over the Sergeant's face, and a moment later he held up a big, almost black cat.

A feeling of relief came over the Colonel, and after spending a few moments in testing the controls he brought the plane in for a landing.

It seems that the cat had stowed away and shortly after the take-off, while exploring the ship, had become wedged between the stick and the edge of the square aperture around the control column. Sergeant Mendel swears by all that's holy that he had to stretch that cat at least two feet before it would turn loose of the stick.

It is rumored that the Colonel is still trying to explain to the Operations Officer why he took an unauthorized passenger for a ride. Further, rumor has it that both the Colonel and the Sergeant have suddenly developed a respect for things superstitious."

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Upon the completion of his present course of instruction at the Command and General Staff School, Fort Leavenworth, Kansas, Captain Yantis H. Taylor, Air Corps, will assume the duties of Instructor of the 35th Division Aviation, Missouri National Guard, St. Louis, Mo.

V-7749, A.C.

BOMBER BROUGHT DOWN WITH WHEELS RETRACTED

Flying a Martin Bomber from Mitchel Field, N.Y., to Langley Field, Va., on the afternoon of May 17th, Captain Francis B. Valentine, Air Corps, the pilot, was unable to release but one wheel of his retractable landing gear while flying over Langley Field, and he was ordered to proceed to the Middletown Air Depot, Pa., where he landed his ship with both wheels retracted. The ship was damaged slightly, but there was no injury reported to personnel of the craft.

Captain Valentine circled over Langley Field at about 5:00 p.m., preparatory to landing, but when he found that one of his wheels failed to respond to the release he notified the airdrome authorities by radio of his plight. He was instructed to continue circling and informed that a plane would be sent up to render aid.

Major William C. Goldsborough later took off in an observation plane, carrying about a hundred feet of rope, with which it was hoped a kit of tools could be lowered to the distressed crew. In the kit there were tools that would have been used to pry the balking wheel loose but, in the meantime, Captain Valentine had decided to proceed to middletown before his gas was used up and to attempt the forced landing. He left Langley Field shortly before 5:30 p.m., and came down at Middletown at 6:50 p.m.

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CONTACT COURSE FOR NAVY PERSONNEL

Postgraduate officers and instructors of the Postgraduate School, U.S. Naval Academy, Annapolis, Md., arrived by air transport on the afternoon of May 4th for a three-day contact course at the U.S. Army Materiel Division, Wright Field, Dayton, Ohio. The course included inspection of all departments and laboratories, lectures by department heads, and introduction to the various aeronautical projects under development.

On Thursday, May 5th, the group was welcomed by Lieut. Colonel Oliver P. Echols, Chief of the Engineering Section. Lectures on recent aircraft developments and probable future trends were given by Major H.Z. Bogert and Lieut. C.K. Moore. Inspection of the Flying Branch and experimental airplanes followed.

In the afternoon, the Propeller Laboratory was visited. Captain T.A. Sims and Mr. D.A. Dickey gave lectures on propeller research and propeller vibration.

Friday's program included a visit to the Power Plant, with lectures on aircraft power plants, fuels, oils, and engine installations by Major E.R. Page, Lieut. G.F. Smith and Mr. F.L. Prescott.

The Equipment Branch was open for inspection on Friday afternoon, with a lecture on the various activities by Major F.S. Borum. Mr. J.B. Johnson, Chief of the Materials Branch, lectured on recent developments in aircraft materials, after which an inspection of materials testing laboratories followed.

On Saturday morning there was a conference with Lieut. R.P. Swofford, Jr., and civilian instructors of the Air Corps Engineering School, and a visit to the Army Aeronautical Museum. The officers flew from Annapolis to Wright Field in a Navy transport. They returned on Saturday to the Naval Air Station at Anacostia, D.C.

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THINGS PICK UP IN 4TH RECONNAISSANCE SQD.

The 4th Reconnaissance Squadron, Luke Field, T.H., has suddenly jumped from a 5-ship squadron to a 10-ship squadron, and, says the News Letter Correspondent, "the smoothness with which our engineering section has taken hold is a credit to all in that department. During the past two weeks we have averaged six and one-half airplanes in commission, and very possibly this figure can be increased later.

"The Squadron plans on sending six ships to Hilo for a period of three days on a reconnaissance mission. It is hoped that there will be no hitch in the plans which will prevent a pleasant several days at Kilauea Military Camp in addition to the flight to and from the big island."

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B-18 TRAINING FOR DEPARTMENT OF COMMERCE INSPECTORS

Seven Inspectors of the Bureau of Air Commerce, department of Commerce, who hold commissions in the Air Corps Reserve or in the National Guard, and who also hold military aeronautical ratings as "Airplane Pilots," arrived at the Advanced Flying School, Kelly Field, Texas, on May 9th for temporary duty to receive a special course of pilot instruction on twin-engined equipment. The arrivals were Captains A.P. Kerr, G.W. Neel, M.F. Clark, 1st Lieut. J.H. Douglas, 2nd Lieuts. H.L. Simons and A.M. Alcorn, all Air Corps Reserve officers, and 1st Lieut. F.H. Longeway, of the Minnesota National Guard.

These Inspectors, who were attached to the Bombardment Section, remained at Kelly Field approximately two weeks. Arrangements have been formulated similarly to train fourteen additional Department of Commerce Inspectors, seven of whom are expected to arrive on June 9th, and seven on September 30th.

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Colonel Jacob H. Rudolph, Air Corps, has been relieved from duty as Director of the Air Corps Board, Maxwell Field, Ala., and assigned to Lowry Field, Colo.

A COLORFUL NONCOMMISSIONED OFFICER

By 1st Lieut. Edward A. Suarez, Air Corps

Perhaps one of the most colorful figures in the top ranking noncommissioned officers of the Army is one, 1st Sergeant Edward L. Winans, for the past two years "Top Kick" of the 26th Attack Squadron.

Prior to transferring to the Air Corps in grade in 1931, 1st Sergeant Winans was a motor transportation expert. Because of the efficient manner of performance of his duties as supervisor, motor pool, Fort Sam Houston, Texas, he was given the job of handling all of the transportation used in some of the outstanding military motion pictures, namely: "Big Parade," "Rough Riders" and "Wings."

As a young soldier, 1st Sergeant Winans distinguished himself in having been chauffeur for more Generals than any other soldier. Because of his neat appearance, 1st Sergeant Winans was chosen to chauffeur for General John J. Pershing, Commander-in-Chief of the American Expeditionary Forces, and Marshal Foch, Commander-in-Chief of the Allied Armies during the World War, on the inspection trip which they made just after the World War. Sergeant Winans has chauffeured for Major Generals John L. Hinds, Edward M. Lewis and Joseph T. Dickman, all former commanders of the Eighth Corps Area.

In 1931, Sergeant Winans was transferred in grade to the Air Corps, with station at the Air Corps Training Center, Randolph Field, Texas. After serving for five years at this station, he came to Hawaii in 1936. During his two years in the 26th Attack Squadron, he has won a place in the hearts of all Squadron personnel. Always willing to lend a hand, always smiling, Sergeant Winans' absence will be felt when he departs on the transport for Barksdale Field, La.

Alhoa, "Top"! May you continue to carry on at Barksdale as you have done throughout your service - efficient, loyal and "Just."

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ANOTHER B-18 BOMBER FOR HAMILTON FIELD

Hamilton Field's flying equipment was recently increased by an additional Douglas B-18 Bomber, which was flown to that field from the Douglas Aircraft Company, Santa Monica, Calif.

The crew consisted of Colonel John F. Curry, Air Corps, Commanding Officer of Hamilton Field, and Major Edward C. Black, Air Corps, Commanding Officer of Base Headquarters and 5th Air Base Squadron, as pilots; Staff Sergeant William A. Murray, Crew Chief, and Private 1st Cl. Ferdinand A. McCallum, radio operator.

This new addition gives Hamilton Field a total of 21 B-18's, the majority of which participated in the GHQ Air Force Maneuvers on the East Coast.

MAINTENANCE FLIGHT BY ADVANCED STUDENTS

The Observation Section, the student personnel of which consists of 16 Flying Cadets, 2 Regular Army officers and 2 Foreign officers, departed from the Advanced Flying School, Kelly Field, Texas, on May 18th, for Abilene, Texas, on a Maintenance Navigation Training Flight. Accompanying the flight were Captain R.E. Randall, 1st Lieuts. C.F. Densford and R.B. Epler, Air Corps, and 2nd Lieut. A.R. Walker, Air Reserve, instructors, with four enlisted mechanics. Before returning to Kelly Field, the flight was scheduled to visit Fort Sill, Oklahoma; Amarillo, Texas; Albuquerque, New Mexico; El Paso and Midland, Texas. The 24 airplanes on the flight, comprising 13 O-25's and 11 BT-9's, were to be serviced and maintained by the students, under the supervision of their instructors, one day being devoted to maintenance at El Paso.

The Bombardment Section, the personnel of which consists of 10 Flying Cadets, also departed from Kelly Field on May 18th on their Maintenance Navigation Training Flight, with Barksdale Field, La., as their stopping point, then to Fort Sill, Oklahoma; Albuquerque, New Mexico, and El Paso, Texas, and returning to Kelly Field via Abilene, Texas. Four instructors accompanied this flight - Major J.V. Hart, 1st Lieuts. D.T. Spivey, R.J. Browne and R.D. Butler - and six enlisted mechanics. The students were charged with the responsibility of servicing and maintaining their airplanes while on the trip, a one-day stop being scheduled for El Paso, Texas, for the purpose of maintenance.

Due to the greater size of the Pursuit and Attack Sections, their maintenance flights will consist of two echelons each, which will follow, in general, the itinerary of the Observation and Bombardment Sections. The first echelon of the Attack Section was scheduled to depart from Kelly Field on May 23rd, the first echelon of the Pursuit Section on May 25th, the second echelons of the Attack and Pursuit Sections on June 1st. All flights are expected to be completed by June 4th.

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Major Leland C. Hurd, Air Corps, arrived at Wright Field, Dayton, Ohio, on April 23rd, ferrying in from the plant of the North American Corporation, Inglewood, Calif., the first production article on the contract for O-47 airplanes. The O-47 will receive full inspection and flight testing at the Materiel Division before the remaining airplanes on contract are released for production and flight acceptance tests.

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CADET LOSES LIFE IN AIRPLANE ACCIDENT

Flying Cadet Kinch Exun Brister, Jr., a student in the Attack Section at the Air Corps Advanced Flying School, was killed in an airplane accident - the cause of which is unknown - on a farm about eight miles southwest of Kelly Field, Texas. At the time of the crash, which was at approximately 8:45 a.m., on May 20th, Cadet Brister was engaged in a local flying mission in an A-12 airplane.

According to witnesses, the plane was in a power dive from about 1,000 feet, and flew into the ground and crashed, apparently out of control. Mr. Memwich, who lives near Macdona, Texas, the town nearest the scene of the crash, drove to Kelly Field to report the accident and that he had found the remains. The airplane was completely demolished by fire.

Cadet Brister was born February 19, 1916, at Yazoo City, Miss. He is survived by his parents, Mr. and Mrs. K.E. Brister, who reside in Yazoo City.

The deceased Flying Cadet reported at Kelly Field on February 23rd, last, and would have graduated on June 16, 1938. He held a commission as a second lieutenant in the Coast Artillery Corps Reserve. He graduated in 1937 from the Mississippi State College with a Bachelor of Science degree.

The sympathy of the Air Corps is extended to his bereaved parents.

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ENGINEERING AND SUPPLY CONCLAVE

The annual Engineering and Supply conference, which is made up of the engineering and supply officers from the five Air Depots in the United States, convened at Wright Field from April 11th to 16th. The subjects under discussion were the maintenance and engineering problems regarding Air Corps airplanes, engines and equipment. The following officers from the various Depots were in attendance:

Lieut. Colonel W.B. Mayer and Major C.F. Wheeler, Scott Field Air Depot.

Majors Ray A. Dunn and George Lundberg, Middletown Air Depot.

Lieut. Colonel Henry J.F. Miller, Commanding Officer; Majors E.D. Perrin and J.M. Clark, San Antonio Air Depot.

Lieut. Colonel S.J. Idzorek and Major J.T. Morris, Rockwell Air Depot.

Majors R.B. Walker and R.S. Heald, Fairfield Air Depot.

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Major A.E. Simonin, Air Corps, recently ferried to Wright Field from the plant of the Curtiss Company, Buffalo, N.Y., a new P-36A airplane for inspection and flight testing by the Materiel Division. This is the first production article to be delivered on a contract for 210 of these airplanes placed in July, 1937, at a total cost of $4,113,550.

NEW ARMY-NAVY AERONAUTICAL SPECIFICATION UNIT ESTABLISHED AT MATERIEL DIVISION.

For the purpose of obtaining standardization of aeronautical specifications between the Army and the Navy, a new Army-Navy Aeronautical Specification Unit has been established at the Air Corps Materiel Division, Wright Field, Ohio, which shall be known as the "A-N Aeronautical Specification Unit." The administrative control of this unit will be vested in the Chief of the Materiel Division, and the executive control in the Permanent Working Committee of the Aeronautical Board, Washington, D.C.

The Air Corps Specifications and Standards Unit, which is at present at the Materiel Division, will cooperate with the new unit in all matters of an administrative nature pertaining to specification requirements, also in all matters pertaining to the change of specifications already prepared into A-N or, if feasible, into Federal specification form. Specifications under the new unit will fall into the following categories:

Those which have been covered by A-N Aeronautical Standards;

Those which have been covered by A-N Commerce Aeronautical requirements;

Those which cover commodities having exactly identical technical requirements for the Army and Navy, or those having requirements which may readily be brought into accord; and

Those which are requested by either service as containing requirements satisfactory to both.

With full coordination and cooperation between all working agencies, it is hoped that closer standardization may be brought about.

Lieut. Colonel Harrison W. Flickinger, Office of the Chief of the Air Corps, is the Army member of the Permanent Working Committee in charge of the new unit. Working personnel consist of three engineers, particularly qualified because of familiarity with technical requirements of the Materiel Division, and clerical assistants.

A similar Coordinating Unit has been organized, representing Navy requirements, and is functioning at the Naval Aircraft Factory, Philadelphia, Pa. Lieut. Commander J.E. Dyer is the Naval member of the Permanent Working Committee in charge of the new Navy A-N Unit, which office corresponds with that of Colonel Flickinger's for the Army.

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Wright Field, on Saturday, April 30th, was visited by 250 members of the Junior Association of Commerce in convention in Dayton from all parts of Ohio. They toured the field, the flying line and the Army Aeronautical Museum and listened to lectures on outstanding engineering activities by Major Carl F. Greene, of the Engineering Procurement Branch, and Mr. D.A. Dickey, of the Propeller Unit.

WEATHER OFFICERS

Under Special Orders of the War Department, recently issued, eight Air Corps officers are slated for duty as students to pursue a course of instruction in Meteorology at civilian educational institutions.

First Lieut. Paul H. Johnston, of Mitchel Field, N.Y., is to proceed to Cambridge, Mass., to pursue the summer course of instruction in Mathematics and the regular course of instruction in Meteorology at the Massachusetts Institute of Technology.

The following-named officers are to pursue the special course of instruction in Meteorology, the summer course of instruction in Mathematics and the regular course of instruction in Meteorology at the California Institute of Technology, Cambridge, Mass:

First Lieuts. John DeP. T. Hills and Wilson H. Neal, from March Field, Calif.

The five officers named below, also slated to attend the California Institute of Technology, Pasadena, Calif., are to pursue the summer course of instruction in Mathematics and the regular course of instruction in Meteorology, viz: 1st Lieuts. Leo P. Dahl, from Barksdale Field, La.; R. Loyal Easton and Robert F. Fulton, from Randolph Field, Texas; Donald N. Yates from Brooks Field, Texas, and Ivan L. Farman from Chanute Field, Rantoul, Ill.

Six Air Corps officers, who are nearing the completion of their course of instruction in Meteorology at civilian educational institutions, are under orders to proceed to the Air Corps stations indicated for duty, viz:

1st Lieuts. Edwin G. Simenson and Marcellus Duffy, from the Massachusetts Institute of Technology, Cambridge, Mass., the former to Selfridge Field, Mich.,and the latter to the Fairfield Air Depot, Patterson field, Ohio, for duty as Post Weather Officers.

Of the remaining four officers, attending the California Institute of Technology, Pasadena, Calif., 1st Lieuts. Sidney A. Ofsthun is slated for duty with the 3rd Weather Squadron, Barksdale Field, La.; Harold L. Smith to duty with the 1st Weather Squadron, March Field,Calif.; Sebastian Stone as Post Weather Officer at Fort Lewis, Wash., and John B. Ackerman as Post Weather Officer at Chanute Field, Ill.

First Lieut. Anthony Q. Mustoe has been relieved from duty as Post Weather Officer at Selfridge Field, Mich., and assigned to duty as Weather Officer of the GHQ Air Force, with station at Langley Field, Va.

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ASSIGNMENT OF TACTICAL SCHOOL GRADUATES

The following-named Air Corps officers are assigned to duty at the stations indicated upon the completion of their present course of instruction at the Air Corps Tactical School, Maxwell Field, Ala.:

To Langley Field, Va.: Major Harrison G. Crocker and Captain Clyde K. Rich.

To Mitchel Field, N.Y.: Major Sigmund F. Landers, Captain George H. Sparhawk, 1st Lieut. Raymond L. Winn.

To Chanute Field, Ill.: Captain Reuben F. Kyle, Jr.

To Lowry Field, Denver, Colo.: 1st Lieut. Paul T. Cullen.

To Barksdale Field, La.: 1st Lieut. Lloyd H. Watnee.

To Maxwell Field, Ala.: Major Warren A. Maxwell.

To Hamilton Field, Calif.: 1st Lieut. George W. Hansen.

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AIR CORPS NATIONAL GUARD INSTRUCTORS

Major Leonard D. Weddington, under orders for duty as Instructor of the 31st Division Aviation, Alabama National Guard, Birmingham, Ala., upon the completion of his present course of instruction at the Air Corps Tactical School, relieves Captain Ronald L. Hicks, who is assigned to duty in the Office of the Chief of the Air Corps, Washington, D.C.

Captain Lee Q. Wasser is assigned to duty as Instructor of the 34th Division Aviation, Minnesota National Guard, St. Paul, Minn., upon the completion of his course of instruction at the Tactical School.

Major David R. Stinson is relieved from duty as Instructor, Air Corps, Massachusetts National Guard, and assigned to duty at Langley Field, Va.

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AERONAUTICAL ENGINEERING COURSES

The following-named Air Corps officers are under orders for duty as students to pursue a course in aeronautical engineering at the educational institutions indicated, viz:

To the University of Michigan, Ann Arbor, Mich.: 1st Lieut. Daniel F. Callahan, Jr., upon the completion of his present course of instruction at the Air Corps Engineering School, Wright Field, Ohio.

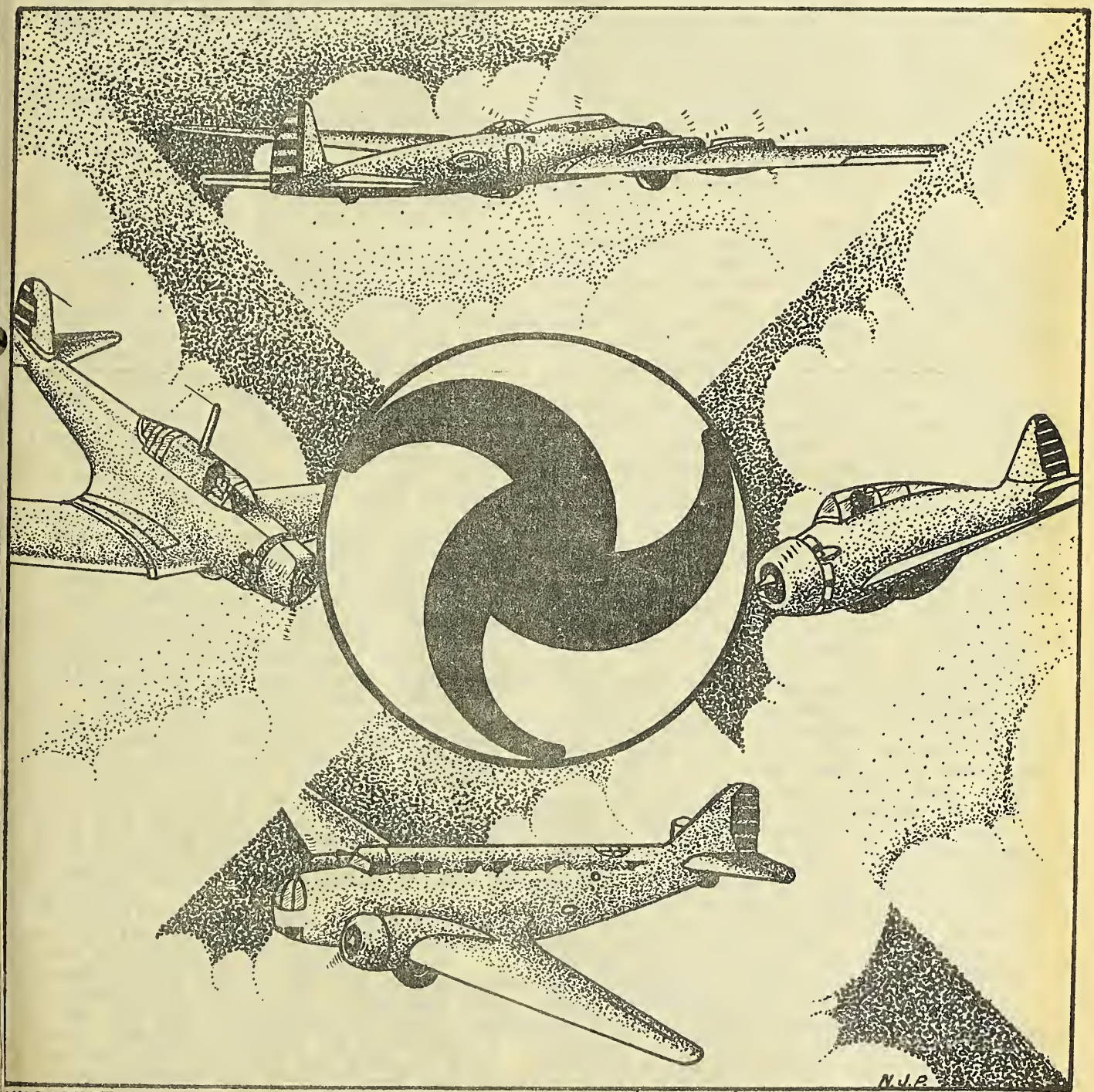
To the California Institute of Technology, Pasadena, Calif.: 1st Lieut. Clark N. Piper, upon the completion of his present course of instruction at the Air Corps Engineering School.

To Leland Stanford, Jr. University, Stanford University, Calif.: 1st Lieut. Samuel R. Brentnall, upon the completion of his present course of instruction at the Air Corps Engineering School.

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Major George C. Kenney is relieved from duty as instructor at the Infantry School, Fort Benning, Ga., and assigned to the 97th Observation Squadron, Mitchel Field.

'AIR CORPS' News Letter.



WAR DEPT.
VOL. XXI.

OFFICE OF THE CHIEF OF THE AIR CORPS.
JUNE 15, 1938.

WASHINGTON, D.C.
NO. 12.

VOL. XXI AIR CORPS NEWS LETTER NO. 12.

Information Division
Air Corps

June 15, 1938

Munitions Building
Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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GREETINGS TO THE FIRST CLASSMEN AT MITCHEL FIELD

THE Air Corps welcomes the First Class, United States Military Academy, to Mitchel Field for its two weeks' air experience course. Whether you plan military flying careers or have determined to elect one of the older branches of the service, I think you will find your brief period with the Air Corps an interesting and instructive one. With this end in view, I believe that some general observations by the Chief of the Air Corps on the duties and opportunities of an officer of the Air Corps are appropriate.

In these times it behooves every military man to become thoroughly familiar with the powers and limitations of the airplane as a weapon and with air forces as important elements in fighting teams.

Concerning the claims of those who would minimize the effect of the air phase of modern warfare, it seems sufficient to point to the fact that all the leading air powers are now busily engaged in air armament. Their expenditures for aviation equipment this year will exceed those of any other year in peacetime history.

There are some very definite things which members of your class may well do during your brief period at Mitchel Field. First, you can make some first hand observations on military aircraft and on the functions of Army air units - their tasks, their methods, their organization, their equipment and their training. Next, each of you can conduct a worth while self analysis; you can determine whether you are suited by temperament, characteristics and physical and mental set-up to fit into the military air picture as a flying officer. Then, you can make some valuable observations and form some definite conclusions which should influence your whole Army career no matter what service or arm you may elect.

You will observe what effect the presence of aviation may have on dispositions and methods of employment of ground forces and to see the cooperation and assistance which air units may render to the other branches in field operations. Lastly, it will be arranged, I hope, so that you can see some of our latest military types of planes and auxiliary flying equipment and gain some conception of the present state of aeronautical experimentation and development.

No prospective Army officer should look forward to a life in the Air Corps as a career purely of adventure, of ease, of recreation or of inaction. Certainly no industry has been less static than has the aviation industry in its short period of existence. Military aviation has kept pace with that rapid advance if, indeed, it may not have led the way.

In the air world, the fantasies of yesterday become the experiments of today and the realities of tomorrow. No branch of the service has developed more rapidly or grown so fast. It is necessary for every Air Corps officer to work and study and learn continually in order to keep abreast of the magic advance in the art of flying and to maintain even a passing acquaintance with new equipment. An old pilot once summarized this aspect quite accurately when he said: "Today I flew my plane for several hours; I know it thoroughly; I can do anything with it; I know every instrument; I know how it flies, every peculiarity, every characteristic of it and all its parts; but tomorrow I shall have to learn it all over again, for tonight they are hanging some new instruments on it; they are making some changes to increase maneuverability and performance. In the morning my old plane will look differently, feel differently and act differently."

There was a time when an airplane was a fairly simple mechanism. Pilots flew them largely by what they called "feel." Those were the times when they were made of stick and wire and cloth; when they were powered by little engines of less than a hundred horsepower, when they weighed less than a ton, and when they mounted fewer than half a dozen instruments. Now, many of them weigh more than thirty thousand pounds, mount four engines of more than a thousand horsepower each, and on their instrument boards are more than two hundred telltale "gadgets." Some of them carry crews of nine, ten or eleven men; they can fly for three thousand miles without landing; some can cruise at nearly three hundred miles per hour; they are built of metal and house ordnance which gives them a fire power of more than six thous-

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and rounds per minute and a bomb capacity of more than ten thousand pounds. Such planes require trained specialists - navigators, engineers, gunners, bombers and pilots - all welded and trained into coordinated combat crews.

While the life of the Air Corps officer is not a simple nor an idle one, it is filled with some engrossing aspects. The first years of a flying officer are engaging, for this business of learning to fly is filled with its full measure of duties and incidents and experiences which appeal to healthy young men. Those years immediately following are not devoid of interest. The officer rises to the rank of Captain and is assigned to the command of one of the "Flying Fortresses"; or he becomes a flight leader; or, provided he elects to specialize, he may take up advanced instruction in engineering phases at our own service schools or at the civil engineering institutions. Those succeeding years, when longer service brings increased rank and responsibilities, have their compensations, too. I have no doubt that our group commanders who lead our large formations of bombers or fighter planes on military missions feel that they have reached a peak in personal satisfaction.

Some idea of the variety of life and work in the Air Corps may be gained from current examples. A few weeks ago, nine of our men flew six "Flying Fortresses" to Buenos Aires and return, a trip of more than eleven thousand miles, consuming approximately 59 flying hours. Last month, GHQ Air Force Maneuvers were held in the northeastern section of the United States, requiring the assembly of the units of the Air Force on 19 temporary air bases in that area. This exercise involved the transfer by air of more than three thousand officers and men, and necessitated the transportation by air of more than three million pounds of materiel, including fuel and lubricants.

This year we have more than 20% of our officer strength on foreign service in Hawaii, Panama and the Philippine Islands.

The following schedule indicates the number of our officers who pursued advanced educational courses both in military and civil schools during the present year:

Army War College	11
Command and General Staff School	39
Army Industrial College	9
Air Corps Tactical School	60
Air Corps Technical School	36
Air Corps Engineering School	11
Massachusetts Institute of Technology, California Institute of Technology, University of Michigan, University of Virginia and Harvard School of Business Administration	16

The great majority of our officers are, of course, serving as flying officers in our tactical units, most of which are located at our larger flying fields - March and Hamilton Fields in California; Langley Field, Va.; Barksdale Field, La.; the Air Corps Training Center, near San Antonio, Texas; Selfridge Field, Mich., and Mitchel Field, New York. Several Air Corps officers are on duty at foreign capitals as Assistant Military Attaches, while eight of them are now assigned to compose a military mission to Argentina.

More than one hundred Air Corps officers are on duty at Wright Field, where they head technical branches at our Materiel Division or are engaged in experimentation or research in the various branches of airplane, engine and instrument or equipment development. Several of our officers are also on duty as inspectors at manufacturing plants which are building airplanes, engines and equipment for the service.

The wide variety of assignment and duty available to Air Corps officers is a consequence of the fact that our Corps is not only a combat arm, but is also a supply branch and a technical service.

I wish for each of you a pleasant and instructive tour of inspection and duty this summer, continued success during your last year at the Academy, and happy and prosperous years of service in the Army.

O. Westover,

O. WESTOVER,
Major General, Air Corps,
Chief of the Air Corps.

OFF-SHORE RECONNAISSANCE FLIGHT
By the Langley Field Correspondent

One of the highlights of the recent GHQ Air Force Maneuvers was the off-shore reconnaissance flight executed by the 49th Bombardment Squadron of Langley Field, Va. This mission proved to be the most severe test of accurate dead reckoning navigation with which any unit of the 2nd Bombardment Group had ever been confronted.

At 8:30 o'clock on the morning of May 12th, three B-17 Bombardment planes, under the command of Major C.V. Haynes, departed from Mitchel Field, N.Y., under orders to intercept the Italian steamer REX, enroute from Italy to New York. Radio position reports from the REX indicated that her position at 8:30 a.m. was approximately 725 miles east of New York City. At 8:45 a.m., the three planes swung over Sandy Hook and headed east on a true course of 101 degrees and at a speed of 170 miles per hour. The lead plane, B-17 No. 80, was commanded and piloted by Major Haynes. The other two planes, B-17's Nos. 81 and 82, were commanded and piloted by Captains C.W. Cousland and A.Y. Smith. First Lieut. C.E. LeMay, the flight navigator, was at his post in the lead plane. Major Vincent J. Meloy, in charge of the radio broadcast, was stationed in the lead plane.

In the radio compartment of the lead plane was installed an aircraft transmitter of the National Broadcasting Company, and three of its representatives - two engineers and one announcer - stood by for action. A program was scheduled to go on the air at 12:30 p.m., at which time the three planes should be over the REX. Representatives of the Press were included in the passenger list of the two other planes, ready to give the country an accurate account of the ability of the Army Air Corps to work under pressure.

A heavy overcast forced the flight to hold an altitude of not more than 1100 feet during the outset of the mission. At about ten o'clock, the flight came out into the good weather, which afforded the navigator an opportunity to make accurate double drifts and check his ground speed. This good weather continued until eleven o'clock, at which time it was necessary to fly through a cold front, the three planes separating and assembling in clear weather on the other side in some ten or fifteen minutes. After a double drift was made, Lieut. LeMay announced the E.T.A. over the REX as 12:25 p.m.

At noon, the flight reached an area of scattered rain squalls, which was a source of much discomfort to all, since it was feared that the REX might be in the center of one of these storms, making it impossible to sight her.

The N.B.C. network was standing by for a 12:30 broadcast. At 12:23, the REX was sighted dead ahead, and at 12:25, on the exact minute of the last E.T.A. (estimated time of arrival), the formation passed over the steamer.

The radio broadcast was carried out successfully on schedule. No difficulty was encountered in raising the steamer by radio, and the Staff Commander of the REX, Captain Cavallini, came to the ship's "Mike" to remark that this was the first time that he had been welcomed to America while still 620 miles off-shore. He further remarked that he would be delighted to have all members of the flight come down for lunch, but Major Meloy politely declined.

At 4:30 p.m., the flight landed at Mitchel Field, after a most interesting mission. At 9:30 o'clock the following morning, the same three airplanes, enroute to the Harrisburg Airport, noticed the REX steaming past the Statue of Liberty into New York Harbor.

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OFFICIALS INSPECT 49TH SQUADRON

On the morning of May 13th, the 49th Bombardment Squadron of Langley Field, Va., was inspected by General Westover, Chief of the Air Corps, and by members of the House Military Affairs Committee. The Congressmen arrived in a C-33 airplane, flown by Colonel William O. Ryan. The Congressional group consisted of the following: Mr. Merritt, of New York; Mr. Edwiston, of West Virginia; Mr. Smith, of Connecticut; Mr. Mahone, of South Carolina; Mr. Brooks, of Louisiana; Mr. Sparkman, of Alabama; Mr. Casson, of Massachusetts, and Mr. Costello, of California. General Westover and all members of the House Committee were escorted over the camp and taken through the airplanes by the Commanding Officer, Major Caleb V. Haynes. All spoke well of the efficient set-up of the Squadron camp at Harrisburg, Pa.

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FORCED LANDING BY ADV. SCHOOL STUDENTS

On May 27th, while Major Lawrence A. Lawson, Air Corps, and 1st Lieut. Joseph E. Barzynski, Jr., Inf., both students in the Observation Section of the Air Corps Advanced Flying School, Kelly Field Texas, were engaged in a student reconnaissance flight in cooperation with ground arms at Camp Bullis, engine failure necessitated a forced landing at about 11:00 a.m., which resulted in a crash on the Malabang Trail, just east of High Hill, Camp Bullis. The O-25 in which they were flying, and which was

(Continued on Page 8).

PROMOTION OF AIR CORPS FIRST LIEUTENANTS

Special Orders of the War Department announce the promotion of 17 first lieutenants of the Air Corps to the grade of captain, with rank from June 7, 1938, as follows:

John A. Austin	James L. Daniel, Jr.
Ford J. Lauer	Budd L. Peaslee
Fay O. Dice	John F. Egan
Herbert E. Rice	Edgar R. Todd
Edward H. Porter	Arthur LaS. Smith
Joseph H. Atkinson	Donald D. Arnold
Robert L. Schoenlein	Clarence T. Mower
Frederick W. Ott	Louie P. Turner
Wentworth Goss	

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SECOND WING COMMANDER VISITS KELLY FIELD

Brigadier General Arnold N. Krogstad, Air Corps, Commanding General of the 2nd Wing, GHQ Air Force, arrived at Kelly Field, Texas, at 5:30 a.m., May 22nd, after a non-stop flight in a B-17 "Flying Fortress" from Langley Field, Va. He was accompanied by Captain N.B. (Chick) Harding, 1st Lieuts. Williams, Gibbs and Kilpatrick, and two enlisted mechanics. The route followed was Langley Field to Tampa, Fla., then across the Gulf of Mexico to Port Aransas, Texas, to Kelly Field.

General Krogstad and his party left Kelly Field about 8:00 a.m., May 25th, following the same course as on the southbound trip, but in reverse order. While in San Antonio, the General attended the graduation exercises at Thomas Jefferson High School on May 22nd, where his son, Arnold N. Krogstad, Jr., was graduated.

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LANGLEY MEN HONORED AT MEMORIAL SERVICE

Eight Langley Field officers and enlisted men, who died since last Memorial Day, were honored with special services at 10:45 a.m. on Memorial Day at the chapel, with Chaplain Silas E. Decker delivering the address at its Protestant service.

Miss Jacqueline Marston led the chapel choir during special music.

Those who were honored included Major Alfred E. Waller, of Headquarters and Headquarters Squadron, 8th Pursuit Group; Technical Sergeant Henry A. Bergman, Administrative Section, Base Headquarters and 1st Air Base Squadron; Corporals Sidney A. Gibbs, Security Section, Base Headquarters and 1st Air Base Squadron, and Alton B. Langston, Third Observation Squadron; and Privates Marvin S. Cranfall and Harold L. Mulnix of the 49th Bombardment Squadron; Joseph Remi Ami Cours, 20th Bombardment Squadron, and Kenneth A. Oyler, of Headquarters and Headquarters Squadron of the Second Wing.

TALKING ABOUT RECORDS

"During the past year or more," declares 1st Lieut. George F. Schlatter, Air Corps, "I have been much interested in reading of the many and varied records that have been established by pilots and ships of the Air Corps. It seems that hardly a week passes that does not see some change in the existing records. Permit me to add one more record to the files.

"During the past year, I have been acting as the Air Corps Representative at the Stearman Aircraft Company in Wichita, Kansas, testing PT-13A airplanes for Randolph Field. Since there was no other equipment available, all business and cross-country trips were, of necessity, made in these Randolph Pursuit jobs. The net result has been an appropriate total of ninety hours of navigation in PT-13A's. Of course, no one has ever before submitted such a record to my knowledge, so it is altogether possible that there are other claimants. To him who bests me, my congratulations and condolences: he's a better man than I.

"What a ship! Not all was beer and skittles, but the day I went to Fort Riley, a flat 100 miles, in thirty-six minutes, and took an hour and fifty-five minutes to return, was indicative. Anywhere else, I could cruise along with the BT-2's, but the Kansas winds really played hob with that possibility. And it is a bit tough to zig and zag like an Army worm in order to pick up gas every couple of hundred miles.

"In addition, they are marvelous for mid-winter flying. So cool and invigorating - so bracing. One Randolph ferry pilot found the answer, though, by landing in a corn field and running up and down in full regalia until he saw the farmer coming. Having seen an insane asylum just over the hill, he prudently took off without waiting for his visitor.

"But enough. There's the record - shoot at it. Or at me for mentioning it."

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PHOTOGRAPHIC PROJECT AT MARFA, TEXAS

First Lieut. Charles A. Clark, Jr., Photographic Officer at Kelly Field, Texas, accompanied by Staff Sergeant Charles H. McCoy, spent two days, May 25th to 27th, at Marfa, Texas, engaged on a photographic mission with which the local Photographic Section had been charged. Three days prior to the actual performance of the project, Lieut. Clark visited Marfa on a navigation flight to look over the terrain involved in the proposed mission. The results of the trip were very satisfactory, an area of approximately 400 square miles being photographed.

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COMMISSIONS IN THE AIR CORPS, REGULAR ARMY

The War Department announced on June 14th that examinations will be held in July and August for the appointment of approximately 200 second lieutenants in the Air Corps of the Regular Army. Applicants will be limited to graduates of the Air Corps Training Center who are qualified pilots of service equipment, and who will be less than 29 years and ten months old on August 1, 1938.

Candidates will submit applications, together with photographs and papers showing evidence of graduation from the Air Corps Training Center and proficiency in flying, to Corps Area or Department Commanders. Preliminary examinations to determine the flying proficiency of candidates will be completed not later than July 15th.

The final examinations, to be held from August 1st to 3rd, will consist of two parts, the first covering general educational subjects, and the second embracing technical aviation subjects. Graduates of recognized colleges and universities will be excused from taking the first part of the final examination. In addition to the educational and professional examinations, candidates will be required to pass a rigid physical examination.

On account of the short time in which to consider applications, the War Department urges all eligible candidates to submit their applications at once.

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GENERAL WESTOVER VISITS THE CANAL ZONE

Supplementing the article on the above subject, which appeared in the June 1st issue of the Air Corps News Letter, the Albrook Field Correspondent submitted the following:

"On Friday, May 13, 1938, word was received by the 19th Wing Headquarters from Pan American Airways that Major General Oscar Westover had departed from Brownsville, Texas, for Guatemala City, Guatemala, enroute to the Panama Canal Zone. For the next few days hurried preparations were made to receive the Chief of the Air Corps, and the progress of his flight through Central America was followed with great interest by all Air Corps personnel stationed at Albrook and France Fields.

"The 'hop' from Brownsville to Guatemala, with one stop in Mexico to service was successfully completed, and on the 14th the General departed from the latter city for Albrook Field. Now, however, a slight hitch occurred. The rainy season was in full swing, and our distinguished visitor was forced to spend the night in David, a small town on the Western border of the Republic of Panama, because of the bad weather common at that time of day in this climate. Sunday, the 15th, arrived clear and unlimited, and after completing the 210-mile flight General Westover landed at Albrook Field at 9:20 a.m.

"During Sunday, Major General D.L.Stone, Department Commander, and Brigadier General F.H. Smith, Pacific Sector Commander, paid informal calls. The rest of the day was spent in resting after this long flight until 5:00 p.m., when the Commanding General, the officers and ladies of the 19th Wing held a reception at the Union Club in Panama City in honor of the Chief of the Air Corps. In addition to Air Corps personnel, many members of the Army, Navy, and Diplomatic Corps were present at this pleasant reception.

"Bright and early Monday morning, General Westover began his tour of inspection at Albrook Field, with General Brett as his guide, and covered every activity in detail. Later in the morning, the necessary official calls were made, first upon General Stone, at Quarry Heights, where an appropriate salute was fired with the attendant escort of honor; then on to the Canal Administration Building at Balboa Heights, where a call was paid upon Governor Ridley, after which operations ceased for the day.

"On Tuesday, May 17th, the gunnery camp at Rio Hato, Republic of Panama, was inspected, and at the same time live bombing by the 25th Bombardment Squadron from France Field was observed; then back to Albrook Field for an official call upon Rear Admiral Walter S. Vernou, Commanding Officer of the 15th Naval District at Balboa, Canal Zone.

"Next came a thorough inspection of France Field and the Panama Air Depot, which completed the round of all Air Corps activities on the Isthmus.

"Finally, there was time for a tour of inspection of the nearby Army posts of the other branches of the Service and a visit to observe Miraflores Locks in action. The customary shopping was attended to in Panama, and the General was taken to a picnic at Taboga Island in the Bay of Panama, in addition to the many social functions in his honor.

"Then on Sunday, the 22nd, our visitor departed from Albrook Field at 6:00 a.m., this time, however, being accompanied (as far as the Mexican border) by two A-17's from the 74th Attack Squadron

"All in all, this visit seemed to be

very enlightening to the Chief of the Air Corps, as well as a profitable one for the Air Defenses of the Canal Zone, since it has now been assured that many improvements may be expected in the near future.

"The entire personnel of the 19th Wing joined in wishing General Westover a pleasant flight home and in hoping that he will again pay Panama a visit in the near future."

At the close of his inspection tour and visit to the two Air Corps fields in the Panama Canal Zone, Major General Westover expressed the following sentiments to the Commanding General of the 19th Wing, Air Corps:

"I wish you would convey to the families of the officers and men of the Air Corps in the Canal Zone, my appreciation of their manifest cooperation in assisting the officers and men of this command in achieving the high standard I have noted here. It is realized that service in the tropics is not always of benefit to the families of officers and men. However, by exercise of due care and precaution, and keeping in mind always the high standards of the Army, which requires team work, not only in the performance of military duties, but in the home life as well - happiness and success is achieved for all. I have noted the fellowship moreover which reflects a community cooperative spirit and tolerance such as are necessary in any successful community life."

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TACTICAL SCHOOL STUDENTS GRADUATE

The students of the Air Corps Tactical School, Maxwell Field, Ala., received their certificates of graduation on the morning of June 3rd, same being presented by Major General O. Westover, Chief of the Air Corps.

About fifty officers were scheduled to depart from Maxwell Field by air and private conveyance for the Army War College Post Exercises in Washington, D.C., scheduled to begin June 12th and to last about nine days.

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YES, IT SNOWS IN HAWAII!

Five airplanes of the 72nd Bombardment Squadron, Luke Field, T.H., were flown on May 12th to Hilo on the Island of Hawaii, where the personnel had a short visit of two days. Although only a few of the enlisted men could go along, almost all the officers and those men who did manage to go enjoyed themselves immensely. The officers went directly to the Kilauea Military Camp, and a few enlisted men also went to the camp. "Although it was raining upon our arrival," declares the News Letter Correspondent, "it soon cleared up, and the cold, clear air of the camp was most invigorating. A snowstorm had left a mantle of white on Mauna Loa, and it was a very pretty sight, indeed. Mauna Kea, the other large volcanic mountain was not in sight during our stay, because of the low strata of clouds which obscured our vision. It was very cold at night and three blankets were necessary to keep warm while sleeping. The second day at the camp was an enjoyable one, starting off in the morning with a trip around the chain of craters, which with Mauna Loa and Mauna Kea are the main points of interest.

In the afternoon, golf and a trip to the Bird Park were next on the itinerary for the officers. The facilities at the camp were excellent, and the food for all was excellent. Our thanks to those responsible for our enjoyable trip and stay at Hilo. Hilo will long be remembered for its generous welcome and the good time had by all while there."

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TARGET PLANTED IN HAWAIIAN WATERS

The 5th Bombardment Group Armament Section, under the direction of 1st Lieut. Marvin L. Harding, Air Corps, has just completed a project involving efforts which might well qualify them for duty with seagoing organizations.

For some time, the 5th Bombardment Group has been without a suitable target for record bombing. A project is under way to remedy this shortage, but progress is slow. In order that the training of the bombers would not of necessity be slighted any longer, it was decided to erect a temporary target, and a site was selected off-shore in the vicinity of Hickam Field. Funds for the purchase of materials were practically non-existent, and the construction of the target by contract was out of the question, so by dint of much begging and borrowing, sufficient timber, rails and drums for the project were assembled.

Construction of the target platform was completed at Luke Field, and the whole suspended above a temporary floating platform for the trip to the target site. By the use of one of the local motor launches, the assembly was towed to the edge of the reef about three miles from its proposed final resting place. The presence of the reef and shallow water necessitated the use of man power for the last phase of the movement. The Group Armament Officer and twenty men pulled the platform through waist-deep water over rough coral, battling high winds and rough seas for every inch of the three miles. After five hours of heaving, the proposed site was reached just before the shoulder high breakers began to take their toll

(Continued on Page 8).

THE REAL AIR HERO

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Ed. Note: Several years ago an Air Corps officer wrote a story under the above title and, happening to run across it just recently, we read it and were so impressed with it that we requested and received permission to reprint it in the Air Corps News Letter.

Every generation of every nationality requires a hero. It finds one or makes one. In earliest times he was mythical; a little later he was some great warrior or explorer. But some man has always been set apart from his fellows and accorded the adulation of the multitude.

A few years after the war heroes began to run out and this emotional complex, this crowd psychology, led the people to cast about for some new head to crown. Then along came the spectacular flights. At this juncture America was searching its collective soul for a new hero, and it seized upon these unsuspecting flyers. So the toga was handed about, falling in turn upon each succeeding ocean spanner or record breaker.

Strangely enough, with all the shouting that has been done, all the medals which have been struck off, not one single soul has picked the right man in this flying business.

Human flight was a comparatively new art. For thousands of years man had longed to soar among the clouds. It was not unnatural then that some member of the flying fraternity should fill the national need for a hero. For some reason the pilot was selected. He it was whose will directed these new machines of flight; whose courage performed these feats of daring high above the earth. So selected he was. And each small boy decided not to be a policeman, fireman or railroad engineer, but visioned himself a flyer when he grew to man's estate.

So we pulled a parade, waved flags, made medals, played the band, and greeted like a viking arriving at Valhalla each new pilot who flew a little higher, or a little longer, or a little faster. Why not? Your airman wore proudly the symbols of his profession. He was the striking figure in this new industry. Little wonder little lads foreswore old models and changed their boyhood dreams.

But we made a great mistake as multitudes always do. The fellows who make airplanes fly, who make records fall, who drove ten thousand airplanes fifty million miles last year were not the pilots. They were the mechanics. Mechs we call them for slang, for short, as some call an Irishman a mick.

Let me tell you about this fellow as I have come to know him in the Army Air Corps, and see if you don't agree with me.

Most men work for reward. There are various forms of reward. The cheers and commendation of onlookers, money, pleasure, self-expression, self-satisfaction. The pilot gets all of these in some degree. What does the mechanic get? His pay ranges from twenty-one to one hundred fifty dollars a month. He sleeps in a long shed with a hundred or more of his fellows. His is the privacy of a bird in the cage. All of his personal belongings are stored under his bed in a four-dollar trunk. He eats in a community mess in mass on fifty cents a day. His working clothes are ill-fitting coveralls. His hands are cut and black from contact with greasy engines. You can's keep that "skin you love to touch" and maintain any intimacy with an airplane power plant.

He rises at daybreak by bugle call; he retires when the last plane is in, when his work is done.

Don't ask me why is an airplane mechanic? What kind of man would elect such a role, such a life? Rather tell me why is a hermit, wizard, nurse, nun or saint. I don't know. There is no accounting for occupational tastes, but every time I fly, I thank Fate for the good mechanic.

He's no dunce, either. To learn all he knows would give many a college professor an awful headache. He gets his invaluable training over a long period of years. The school of hard knocks is his. Truly, he learns to do by doing.

This modern airplane engine is no simple mechanism. It has more parts than the human body and more ailments too. A Divine Providence has fashioned your internal mechanism more smoothly, coordinated your organs better, than man has built this engine. But the good engine mech knows every part, every symptom, every malfunction, as well as any doctor or surgeon knows the causes and remedies for your pains and aches. The mechanic has the trained ear of a skilled musician. But his ear is tuned to the thunderous pounding of four hundred roaring horses, not the tinkling notes of a harp.

Some years ago, I was assigned a plane for flight. I started to climb in. The mech said: "Lieutenant, I wouldn't take that ship up. The engine don't sound right to me."

I ran it up, it delivered full power, hit on both switches, accelerated promptly. I couldn't detect any indication of trouble. I called for the engineering officer. He ran it up and marked it O.K.

But the mechanic still shook his head.

I took off and joined a practice for-

mation, and soon forgot the warning of my mechanic as we flew out of San Diego Bay past Point Loma. Twenty minutes later, the engine quit cold without warning. I sat her down in the sea. She was a land plane and soon sank.

While swimming around waiting for a rescue boat, I made one resolve which has remained with me through the years. When a good mechanic says an engine's bad, I don't trust my judgment. He's the doctor.

This little incident brought out another point, too. The mechanic is not fraught with many of our human weaknesses. That mech was on the rescue boat, but he has never to this good day said, "I told you so." But he couldn't rest until we fished that plane off the ocean floor and he spent his Sunday holiday taking it apart to see what failed. He has all the instincts, training, and frame of mind of a surgeon; he works on a mechanism worth ten thousand dollars but he draws the pay of your surgeon's office boy or charwoman.

One of the characteristics we always like to associate with heroes is courage. Here your mech is not found wanting. He'll fly with any pilot any time and that's something I won't do. It takes more courage to ride than to pilot the plane yourself. You always know what you are going to do. He never does. The chances are ten to one you are a poor automobile driver. Yet the chances are ninety-nine out of a hundred that you feel safer driving a car yourself than riding with Barney Oldfield.

So it is in flying. I have known some pilots to cool off, get cold feet as we say, yet I have never known a mechanic to decline to fly.

In 1918 it fell to my lot to pull a friend from an airplane wreck which had burned. He had shrunk to the size of a Philippine mummy. Since that day I have had no desire or curiosity to aid at the scene of a fatal crash. This is one of the terrible duties a mechanic never shirks.

The mechanic is reliable; he is trustworthy. I cannot name a single airplane crash caused by his negligence. He takes his work seriously; he knows human life is at his mercy. He worries, too.

Not long ago one of my best men who had cared for some years for the special planes of high officials in Washington came to me and asked to be relieved from those planes and assigned to routine work. He said the sorry over the tremendous responsibility he carried was undermining his health. I know another mechanic who spent his last dollar to buy a flashlight so that he could see the better to make his inspections in closed hangars on dark, winter days.

Examine the rolls of the flying dead and you'll find almost as many mechanics as pilots. Yet their names are forgotten. Others get the adulation, the praise, the medals and commendations. You can't name the mechanics whose work made possible the prominent flights, though the pilots' names are household words.

If I didn't have full confidence in my mechanics, I'd be a foot soldier. If they weren't reliable, it would be too dangerous to fly.

So I say to you little mechs, my helmet's off to you. You may be ragged grease-monkeys to some, but to me you're the guardian angels of this flying business.

You're the real Air heroes.

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Target Planted in Hawaiian Waters

(Continued from Page 6)

of the floating platform and collapsed one corner. The flotation drums were then punctured and the target swung into its final position. Anchor rails were driven into the coral and the stringers and center platform installed.

For the purpose of aiding bombers in the spotting of their hits, a 100-foot circle of stakes was placed around the main platform, and the target was ready to take its place in the training program of the Group.

It is estimated that the total cost of the project under terms of open market purchase would have been about $1,200. The actual outlay of $129.38 is a tribute to the ingenuity of the Armament Section and the other departments of the Group and the Hawaiian Air Depot which assisted in the construction.

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Forced Landing by Adv. School Students

(Continued from Page 3)

piloted by Lieut. Barzynski, was completely wrecked. Fortunately, neither Major Lawson nor Lieut. Barzynski suffered any injury.

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GENERAL ROBINS VISITS KELLY FIELD

Brigadier General A.W. Robins, Chief of the Air Corps Materiel Division, Wright Field, Dayton, Ohio, arrived at Kelly Field, Texas, from Barksdale Field, La., at 11:30 p.m., June 3rd, in a B-18A airplane, for a brief visit at the Air Corps Advanced Flying School. General Robins was accompanied by Majors T.H. Chapman and B.E. Meyers, Captain R. Kiellor, and Mr. Studebaker, crew chief. The party left Kelly Field to return to Wright Field on Sunday, June 5th.

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Effective about Sept. 1, 1938, Colonel Shepler W. FitzGerald, Air Corps, is relieved from assignment and duty as a member of the War Department General Staff, Washington, D.C., and assigned to duty in the Hawaiian Department.

V-7755, A.C.

FIRST AUTOGIRO CLASS GRADUATES

History was made at Patterson Field, Fairfield, Ohio, on the morning of May 21, 1938, when the first class in the first Autogiro Training School in the United States was graduated. This event marked the end of five weeks of intensive training in the air and on the line for four student pilots and five enlisted mechanics.

The graduation exercises included the presentation of diplomas to the graduating students and the aerial review. The brief ceremony of presentation of diplomas was conducted in the open space between two hangars, using the autogiros in the door of the hangar as a background. Lieut. Colonel Junius H. Houghton, Commandant of the School, presented the diplomas in the presence of Brigadier General A.W. Robins, Chief of the Materiel Division; 1st Lieut. H.F. Gregory, Assistant Commandant, and assembled guests.

Upon the completion of this part of the ceremony, the students pushed the autogiros from the hangar to the flying line in column, lined the giros abreast, unfolded the rotor blades, and prepared to take off. When everything was ready, all rotors turning fast enough, the leader took off, followed in line by the other four autogiros. After circling the field once, the five giros passed in review in echelon to the right, then formed a circle over operations and landed singly in front of the reviewing stand. This completed the graduation exercises.

Following is a list of the graduates:

Pilots

1st Lieut. P. Ernest Gabel, Mitchel Field, L.I., New York.
1st Lieut. Frank P. Hunter, Jr., Pope Field, Fort Bragg, N.C.
2nd Lieut. James Van G. Wilson, Scott Field, Belleville, Ill.
2nd Lieut. Jay D. Rutledge, Jr., Moffett Field, Calif.

Mechanics

Private, 1st Class, Richard J. Sorensen
Private Robert G. Franks
Private Francis M. White
Private Lee M. Clingler
Private Freeman O. Mallinson

Air Corps personnel who served as instructors for this class were 1st Lieut. H.F. Gregory, 2nd Lieuts. E.S. Nichols, G.H. Snyder, Corporal John M. Teten, Privates 1st Class Otto F. Sill and Jack O. Felt.

Second Lieut. James Van G. Wilson is remaining at Patterson Field as an instructor for the next class, scheduled to start June 8, 1938. He is relieving 2nd Lieut. Graves H. Snyder, who will return to his home station at Fort Riley, Kansas.

The following poem was composed by one of the mechanics after watching the autogiros perform:

THE GIRO

Oh! It floats through the air with the greatest of ease,
The sound of the rotor like the wind through the trees,
Its actions are graceful, all pilots it doth please,
And my admiration it has stolen away.

Oh! Once I rode in it and then I had sworn,
To fly in it again just as sure as you're born
The landing it made looked so absurd,
But it's landing was as gentle as that of a bird.

Oh! It lands on a nickle and leaves four cents change,
Then rolls backwards and picks up what remains
It leaves the ground in nothing flat,
And gets up to five thousand at the drop of a hat.

Oh! It goes at a hundred then comes to a stop,
To look at it makes your heart go flippity flop,
You'd think it would stall and go into a spin,
But you look at the pilot and he'll give you a grin.

Oh! I think that the windmill is just the stuf
It tail-spins your heart but don't treat you rough,
It lifts you straight up in the windiest weather,
Then comes down tail first just as light as a feather.

A ride in a Jeep on a hot summer day,
Is like a mint julep, or so they say,
The fan on the top is to keep you cool,
Now doesn't that make you warm people drool?

So jump in your Giro and go up and play,
The fan on the front keeps the mosquitos away.
And when you come down and hop into bed,
Just think of these merits - need more be said

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LITERARY TALENT IN 96TH BOMBARDMENT SQUADRON

The literary talents of the 96th Bombardment Squadron, Langley Field, Va., have taken a tur for the best, two authors in the organization contributing articles to nationally known magazines recently. Major Harold L. George does justice to his article, "Modern Air Power Not Yet Tested," in the May issue of the National Aeronautics Magazine, and it is highly recommended for study by Air Corps personnel. Lieut W.C. Bentley produced an interesting study on navigation, which bears special interest to t followers of this specialized work, "Orientation and Landfall by Pre-Computed Curves," which will appear in an early edition of Aero Digest.

MAINTENANCE FLIGHT BY ATTACK STUDENTS

The first "round-the-horn" flight by the class in the Attack Section of the Advanced Flying School, Kelly Field, Texas, was completed in May. The flight was made to Barksdale Field, La.; Hensley Field, Texas; Post Field, Oklahoma; Amarillo, Texas; Albuquerque, New Mexico; Fort Bliss and Midland, Texas. The Attack planes went "around the horn" without a scratch, which speaks well for the Attack Section and the 63rd School Squadron. One hundred percent of the A-17 airplanes were in commission for the flight. Also, one hundred percent of the A-17 airplanes were in commission for the start of the second maintenance flight.

Because of the large number of students in the Attack Section and the small number of airplanes, the personnel in the 63rd Squadron are becoming accustomed to working morning, afternoon and night. However, the morale is high and the results are gratifying. Although the maintenance problem is more difficult when students are flying the planes, every crew is very pleased to see their plane flying. Even though the number of Attack planes is limited in the 63rd School Squadron, these planes are used by the Attack Section for student flying. All the flying time for enlisted men of this Squadron is accomplished in the Attack planes, and permanent pilots prefer the A-17 for their miscellaneous cross-country flights. The News Letter correspondent states that it will be a relief to the 63rd Squadron when more Attack planes are assigned to Kelly Field.

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INSPECTORS COMPLETE SPECIALIZED COURSE

Seven inspectors of the Bureau of Air Commerce, Department of Commerce, completed a specialized course in piloting on twin-engined airplanes at Kelly Field, Texas, on May 21st. Each inspector received from twelve to fifteen hours' pilot time on local and cross-country flights.

Those who took the course were Captains A.P. Kerr, G.W. Neel, M.F. Clark, 1st Lieuts. F.H. Longeway, J.H. Douglas, 2nd Lieuts. A.M. Alcorn and R.L. Simons, all of whom are Air Reserve officers with the exception of Lieut. Longeway, who is a member of the Minnesota National Guard. All of these officers also hold the military aeronautical rating of "Airplane Pilot." Several received their early training at Kelly Field and were delighted to return.

In addition to these officers, fourteen more Department of Commerce inspectors are slated to receive similar training at Kelly Field. Two groups of seven each are scheduled to arrive for the course of instruction, one group to start on June 6th and the other on September 30th.

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NATIONAL AIR MAIL WEEK AT LANGLEY FIELD

Seven pounds of mail were collected at Langley Field, Va., by the special air mail pilot, Captain Richard Fell, who flew from Washington, D.C., to Langley Field on Friday afternoon as a feature of the local observance of National Air Mail Week.

Captain Fell was due to have departed from the Nation's Capital at 10:00 a.m., but fog delayed the take-off until nearly twelve noon. He arrived at Langley Field at 12:40 p.m., and was detained there a few minutes when one of the tires on his plane deflated. Before returning to Washington he flew to Appomattox, Monticello, Cape Charles, Williamsburg and Richmond to collect other mail. His manager is Major Al Williams, noted aviator and stamp collector.

Those who took part in the ceremonies were Messrs. W.S. Crockett, Hampton Postmaster; J.B. Davenport, Superintendent of Mails in Hampton; E.S. Riggins, Superintendent of the post office at Langley; R.W. Patrick, Hampton mail clerk, and Captain Fell.

Included in the seven pounds of mail were 194 letters from Hampton, 193 from Langley Field, 16 from Phoebus and 10 from Kecoughton.

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BRITISH AIRMEN VISIT LANGLEY FIELD

Air Commodore A.T. Harris, Air Officer, Commander of the 5th Bomber Group, Royal Air Force, and Group Captain G.C. Pirie, Air Attache of the British Embassy, were luncheon guests of Major General Frank M. Andrews, Commanding General of the General Headquarters Air Force, at his headquarters at Langley Field, Va., on Friday, May 27th.

The two British officers flew to Langley Field from Washington in a British plane, arriving at 11:37 a.m. They were greeted upon landing by Lieut. Colonel Robert Olds, Commanding Officer of the Second Bombardment Group, who later escorted them on an inspection trip at the airdrome, accompanied by Lieut. Hiette Williams. They were given the customary gun salute for visiting dignitaries. They departed for Washington the same afternoon.

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SPECIAL NOTICE: There are on hand in the Information Division, Office of the Chief of the Air Corps, a number of copies of the earlier editions of Air Corps Route Maps which have been superseded by improved and later issues of the same routes. Any pilot desirous of having copies of these map books should forward request to the Information Div. V-7755, A.C.

THE JUNE GRADUATING CLASS AT THE ADVANCED FLYING SCHOOL

Graduation exercises for Class 38-B of the Air Corps Advanced Flying School, Kelly Field, Texas, are scheduled for June 16th. The class consists of two officers of the Regular Army (Major Lawrence A. Lawson, Air Corps, and 1st Lieut. Joseph Barzynski, Infantry), 6 foreign officers, and 88 Flying Cadets.

In general, the customary schedule of events for graduation day will prevail, the ceremonies being preceded by an inspection of airplanes and equipment by the Commandant and his staff and the aerial review, to be participated in by the students of the graduating class at 9:30 a.m.

The graduation ceremonies will be held in the Post Theater at 10:45 a.m., at which time Brigadier General Lesley J. McNair, Commanding General of the 7th Brigade, Field Artillery, Fort Sam Houston, Texas, will address the graduates and present them with their diplomas.

It is anticipated that about 400 Reserve officers, 400 ROTC students from Camp Bullis, and 400 enlisted men of Fort Sam Houston, who have less than one year's service, will be present to witness the aerial review and have explained to them by Air Corps officers all that is going on. They will also be afforded an opportunity of inspecting the type of equipment and installations on the flying line.

The 88 Flying Cadets scheduled to graduate on June 16th, who will be commissioned second lieutenants in the Air Reserve, given the rating of "Airplane Pilot," and placed on extended active duty with Air Corps tactical units, are listed below, as follows:

Wallace, David Woodson	Phenix City, Ala.
Jones, David Mudget	Phoenix, Ariz.
Rush, Richard Francis	Tucson, Ariz.
Yancey, William Rufus	Fayetteville, Ark.
Marett, Samuel Heins	Little Rock, Ark.
Kurtz, Frank Allen	Hollywood, Calif.
James, Frank B.	Huntington Park, Calif.
Hebert, Alvin Edward	Los Angeles, Calif.
Kerwin, John Joseph	Oakland, Calif.
Bowen, John Edward	San Francisco, Calif.
Pollard, John Winston	Wasco, Calif.
Polifka, Karl Lewis	Watsonville, Calif.
Arnold, Richard, Jr.	Hartford, Conn.
Loveless, John Relmond	Washington, D.C.
Taylor, Broadus Beane	Ringgold, Ga.
Chilton, Robert Creed	Boise, Idaho
Krummes, Robert Mathias	Moscow, Idaho
Woolams, Jack	Chicago, Ill.
Wells, Cecil Leon	Edwardsville, Ill.
La Baw, Ralph Guy	Lincoln, Ill.
Stewart, Robert Reed	West Lafayette, Ind.
Stintzi, Vernon L.	Chester, Iowa
Lydon, Leonard C.	Dexter, Iowa
Dunham, Earl Herbert	Jefferson, Iowa
Lewis, David L.	Waterloo, Iowa
Cummings, Lawrence J., Jr.	Lawrence, Kans.
Ramage, Edwin Miles	Lawrence, Kans.
Scoggins, James Edwin, Jr.	Lawrence, Kans.
Brenner, Francis Eastham	Russell, Kans.
Bagby, Robert Clyde	Fishburg, Ky.
Fulcher, Richard P.	Lexington, Ky.
Bowie, William Allen	Baton Rouge, La.
Champagne, Wilbur Anthony	Lafayette, La.
Lee, Roy Murray	Pineville, La.
Billings, Herman	Portland, Me.
Shoemaker, Francis Dodge	Bethesda, Md.
Reed, Elliott H.	Perry Point, Md.
Gurnett, Thomas Edward	Brookline, Mass.
Higbee, Charles Ellsworth	Hyde Park, Mass.
Chalmers, Douglas	Newtonville, Mass.
Overing, Glendon Philip	Orange, Mass.
Adams, Louis Charles, Jr.	West Newton, Mass.
Philbrick, Richard W.	Winchester, Mass.
MacNaughton, Franklin H.	Mulliken, Mich.
Swenson, Raymond T.	Chicago City, Minn.
Walseth, Marvin Ernest	Frazee, Minn.
McNeese, George M.	Bassfield, Miss.
Stewart, William Frederick	Kansas City, Mo.
Martin, Charles Hall	Webster Grove, Mo.
Hoevet, Dean C.	Fairfield, Neb.
Carr, John Kermit	Fallon, Nevada
Hampton, Edgar Wade	Margate, N.J.
Wenrick, Stanley T.	Newark, N.J.
Sakowski, Peter C.	Herkimer, N.Y.
Griffin, James Henry	Asheville, N.C.
Meyers, Gilbert L.	Minot, N.D.
Ward, Donald Thomas	Fargo, N.D.
Ashkins, Milton H.	Cleveland, Ohio
Northcutt, Robert Edward	Cement, Okla.
Bridges, John DeGroff	Oklahoma City, Okla.
Putnam, Walter B.	Tulsa, Okla.
Shipley, Howard J.	Tuttle, Okla.
McCauley, Vernon	Dufur, Ore.
Hammers, Harold Eugene	Hood River, Ore.
Taylor, William Elton	The Dalles, Ore.
Ambrose, Joseph Richard	Danville, Pa.
Wagner, Boyd D.	Johnstown, Pa.
Arnold, Patrick Raymond	Clemson, S.C.
Bacot, Henry Parrott	Lamar, S.C.
Drafts, Lucius Griffith	Leesville, S.C.
Moore, Joseph Harold	Spartanburg, S.C.
Hormell, Earl Lynn	Knoxville, Tenn.
Purinton, William R.	Clyde, Texas
Stagner, Jack	Dallas, Texas
Skiles, Duane H.	Denton, Texas
Crimmins, Fred T., Jr.	Fort Worth, Texas
Keating, Ernest Wilbur	Houston, Texas
Putnam, Claude Edwin, Jr.	Jacksboro, Texas
Smith, Coalie F.	San Marcos, Texas
Randolph, John Peyton	Schertz, Texas
Strickland, John W.	Texarkana, Texas
Chick, Lewis William, Jr.	Twin Sisters, Texas
Herder, Ralph F.	Yoakum, Texas
Droz, Paul Christian	Salt Lake City, Utah
Stockdale, Charles H.	Morgantown, W.Va.
Lunde, Oswald W.	Kewaunee, Wis.
Watkins, Harvey Joseph	Oconto, Wis.
Miller, Edwin B.	Viola, Kans.

It will be observed from the above that Texas with 11 students leads in the matter of State representation among the students of the graduating class, followed by California with 7; Massachusetts with 6; Kansas with 5; Iowa, Oklahoma and South Carolina with 4 each, and the remaining States with three students or less. Three of the five students from Kansas hail from Lawrence, which leads the cities represented in the graduating class, no other city being credited with more than one student.

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CONTRACT AWARDED FOR AMPHIBIAN PLANES

Under date of June 3, 1938, the Hon. Louis Johnson, Acting Secretary of War, announced the approval of a contract for the procurement of 26 short range amphibian airplanes, Gruman Model G-31, with spare parts, from the Gruman Aircraft Engineering Corporation, Bethpage, Long Island, New York, in the total amount of $1,412,916.80.

These airplanes will be assigned to various Air Corps stations, on the coasts and in the Insular possessions where over-water flying is required and where the amphibians will be used primarily as rescue craft.

The Gruman Model G-31, which will probably carry the Army designation OA-9, is powered with two R-985 engines (Pratt and Whitney Wasp, Jr.) and will have a high speed of more than 185 miles per hour and cruise in excess of 140 miles per hour, with a landing speed of about 70 miles per hour. It will carry a crew of two and four passengers. The plane has a normal cruising range of over 500 miles.

The Acting Secretary of War also announced the award to the Fairchild Aerial Camera Corporation, Jamaica, Long Island, New York, of a contract for the purchase of 173 camera machine gun assemblies, type H-1 (16 mm), complete with one film magazine, in the total amount of $61,657.20.

The Keuffel & Esser Company, of Hoboken, N.J., received the award of a contract for 164 Type B-3 drift meter assemblies, involving a total purchase price of $210,125.00.

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PROMOTION OF AIR CORPS FIRST LIEUTENANTS

Elsewhere in this issue of the News Letter is published a list of 17 first lieutenants of the Air Corps who were promoted to the rank of Captain, effective June 7, 1938.

Special Orders of the War Department, dated June 9, 1938, lists 61 additional first lieutenants of the Air Corps, promoted to Captain, with rank as of June 9, 1938, as follows:

William T. Hefley	Charles F. Born
Robert S. Israel,Jr.	Frank F.Everest,Jr.
Donald B. Smith	John J. Morrow
David P. Laubach	Frank J. Coleman
James E. Briggs	R. Loyal Easton
John S. Mills	Norris B. Harbold
George W. Mundy	George R. Bienfang
Alfred R. Maxwell	Russell A. Wilson
Paul H. Johnston	David R. Gibbs
Roscoe C. Wilson	Charles G. Goodrich
Walter E. Todd	A. VanP. Anderson,Jr.
Bryant L. Boatner	Fredk. L.Anderson,Jr.
Nathan B. Forrest	Thayer S. Olds
Robert F. Tate	Robert F. Travis
Samuel R.Brentnall	William H. Tunner
Ralph E. Koon	Robert W. Warren
Howard G. Bunker	John F. Wadman
Stuart G. McLennan	Delmar T. Spivey
John A. Samford	August W. Kissner
Fred O. Tally	LaVerne G. Saunders
Roger M. Ramey	Emmett O'Donnell,Jr.
Forrest G. Allen	Donald W. Titus
John T.Murtha,Jr.	Emmett F. Yost
Samuel E. Anderson	Robert K. Taylor
Joseph A. Bulger	James W. Brown,Jr.
George F. Smith	William C. Sams
Allen W. Reed	Robert H. Kelly
Arthur W. Meehan	James F. Olive, Jr.
Truman H. Landon	Edgar A.Sirmyer,Jr.
Maurice C. Bisson	Thomas W. Steed
Harry E. Wilson	

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FAITHFUL "KEYSTONE" GOES TO WATERY GRAVE

The month of May saw the 23rd Bombardment Squadron, Luke Field, T.H., starting its flying schedule with not a single Keystone on the line. The last of the "Old Faithfuls" belonging to this Squadron made its last flight on April 28, 1938.

After years of service at various posts on the mainland, B-4A airplane, AC #32-133 was assigned to the Hawaiian Department, arriving at the Hawaiian Air Depot on January 14, 1935, with a total of 677 hours. It was assigned to the 72nd Bombardment Squadron at Luke Field on February 20, 1935. On October 12, 1936, the ship was sent to the Hawaiian Air Depot for major overhaul with a total of 1357 hours. Upon the completion of this overhaul it was assigned to the 23rd Bombardment Squadron at Luke Field, where it joined the Keystone fleet already in the Squadron.

Almost a year to the day after assignment to the 23rd Squadron, the life of usefulness of this Bombardment plane came to an end. With a total of 1683 hours to its credit and two major overhauls, old 211 was doomed to everlasting rest in the depths of the blue Pacific.

This plane was the last Keystone to be used for tactical purposes in the Hawaiian Department. "It is with a sigh of real regret," says the News Letter Correspondent, "that we see the last of these old ships go to its deserving reward. No. 211's performance was faithful to the end and never let a pilot down."

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The cover design featuring this issue, submitted by Pvt. Nicholas Proferes, Air Corps, of Langley Field, Va., depicts the insignia of the GHQ Air Force and its four tectical phases - Attack, Bombardment, Pursuit and Reconnaissance. The original drawing needed more black ink to improve its general appearance, so our "old reliable" cover designer, Mr. Frank Dunnington, of the Information Division, added the shading and other fancy touches here and there. We appreciate Pvt. Proferes' contribution and we hope to hear from him again in the near future.

Gilchrist, William David — Auburn, Ala.
Campbell, Charles Clay — Helena, Ala.
Tipton, James Baird — University, Ala.
Gieszl, Carl Raymond — Gilbert, Ariz.
Sharpe, Clayton H. — Morenci, Ariz.
Frazier, Robert M. — Nogales, Ariz.
Gatlin, Glate A. — Nogales, Ariz.
Clapp, Chauncey D. — Phoenix, Ariz.
Green, Clint B. — Somerton, Ariz.
Rogers, George Wendell — Tucson, Ariz.
Lingle, Everette Franklin — Clarksville, Ark.
~~Moore, Lloyd E.~~ — ~~Dumas, Ark.~~
Ainsworth, Woodrow L. — El Dorado, Ark.
Pond, Leroy Richard — Fayetteville, Ark.
Lyle, John Robert — Mena, Ark.
~~Nickels, Claburne Woodrow~~ — ~~No Little Rock, Ark.~~
Cruger, George Adolph — Pine Bluff, Ark.
Curry, Jack Harold — Rogers, Ark.
Batchelor, Jack Franklin — Sheridan, Ark.
Myer, Glen Anthony — Cupertino, Calif.
Northamer, Kenneth Walter — Fresno, Calif.
Davis, Allyn Taylor — Los Angeles, Calif.
~~Larkin, Edward A.~~ — ~~Los Angeles, Calif.~~
MacPhee, Angus C.B. — Los Angeles, Calif.
Vander Heydon, Curtis R. — Los Angeles, Calif.
Alder, Glen Miller — North Los Angeles, Calif.
Lyon, John Edward — Oakland, Calif.
~~Murray, Samuel Fenton~~ — ~~Palo Alto, Calif.~~
Carter, John Henry — Pasadena, Calif.
Hawkins, Reginald — Pasadena, Calif.
Rust, Victor Hamilton — Pasadena, Calif.
Luker, James Wester — Porterville, Calif.
Kazerman, Joseph — Presidio of Monterey, Calif.
Thornquest, William L., Jr. — Redlands, Calif.
Brown, Don Cornelius Paul — Venice, Calif.
Watson, John Simpson — Sacramento, Calif.
Boyd, William Ellsworth — Boulder, Colo.
Kittel, Robert Stewart — Colorado Springs, Colo.
Adams, Fred Theron, Jr. — Denver, Colo.
Akin, Robert Leigh — Denver, Colo.
Bratton, Leslie Raymond — Denver, Colo.
Jacobucci, Blaise Joseph — Denver, Colo.
McMichael, Harry Judson — Denver, Colo.
Piccinati, Jasper George — Denver, Colo.
Tompkins, Rathvon McClure — Denver, Colo.
Clifton, Otis S. — Fort Collins, Colo.
Sumpter, Lee R., Jr. — Fort Collins, Colo.
Foote, Edward Alfred — Andover, Conn.
Frank, John Joseph — New Britain, Conn.
Parker, Frank Russell, Jr. — Old Greenwich, Conn.
Laborde, Fred N. — Southbury, Conn.
Cook, Bailey Cavenaugh — New Castle, Del.
Carpenter, Randall Hamilton — Wilmington, Del.
Campbell, James F. — Washington, D.C.
Dodderidge, William Harris — Washington, D.C.
Grant, Robert Smith — Washington, D.C.
Keller, Joseph Edward — Washington, D.C.
Lennox, William R. — Washington, D.C.
Reiss, Murray — Washington, D.C.
Glomb, Ferdinand F. — Coconut Grove, Fla.
Beyeler, Arnold Walter — Fort Lauderdale, Fla.
Renshaw, Claude D. — Gainesville, Fla.
Thames, Rex Simms — New Smyrna Beach, Fla.
Allen, Charles Oran, Jr. — Panama City, Fla.
Jones, James Dalton — Sarasota, Fla.
Ezzard, Richard Francis — Winter Garden, Fla.
McMillan, George Bray — Winter Garden, Fla.
Mend, Lewis Bruno — Avondale Estates, Ga.
~~Inman, Clyde Richard~~ — ~~Payette, Idaho~~
Powers, Ivan Henry — Aurora, Ill.
Bardone, Frank, Jr. — Carlinville, Ill.
Hays, Samuel Wahl — Chicago, Ill.
Chidester, William Leo — Chicago, Ill.
Gordon, Michael Jacob — Chicago, Ill.
Jones, Russell Snowden, Jr. — Chicago, Ill.
Loomis, Donald Eugene — Chicago, Ill.
Lutz, Nicholas Henry — Chicago, Ill.
Riley, Harris Dean — Chicago, Ill.
Savoie, William Frank — Chicago, Ill.
Wagner, Gordon C. — Chicago, Ill.
Betts, John Leonard — Evanston, Ill.
Petry, Stanton H. — Evanston, Ill.
Fleege, Robert Paul — Galena, Ill.
Baily, Perry Bartholomew — Galesburg, Ill.
Koepke, Fred Vinton — LaMoille, Ill.
Baker, Barton Ormsbee — Moline, Ill.
Sells, Bob Edward — Galesburg, Ill.
Bowen, William Joseph — Oak Park, Ill.
Cory, Albert Arnold — Oak Park, Ill.
Hester, John Kenton — Peoria, Ill.
Marshall, Paul Robert — Peoria, Ill.
Werner, Franklin Andrew — Peotone, Ill.
Condit, Robert Messinger — Rantoul, Ill.
Kuhl, Phil John — Riverside, Ill.
Kelly, Joseph Anthony — Westville, Ill.
Hanner, James Edward — Columbia City, Ind.
Markel, Bruce Stewart — Corydon, Ind.
Miller, Samuel Hudson — Decker, Ind.
Howell, Alvis M. — Ft. Benjamin Harrison, Ind.
Vogl, Oscar James, Jr. — Ft. Benj. Harrison, Ind.
Joude, Herbert August — Evansville, Ind.
Lindgren, Arthur Richard — Indianapolis, Ind.
Terhune, Charles H., Jr. — Indianapolis, Ind.
Bassett, Charles Edward — LaPorte, Ind.
Matthews, Robert Lee — South Bend, Ind.
Reed, William Benjamin — South Bend, Ind.
Grieger, Harvey Emil — Wanatah, Ind.
Emrick, Paul Stanley — West Lafayette, Ind.
Sprankle, Kenneth Wayne — West Lafayette, Ind.
Williams, John Howard — West Lafayette, Ind.
Clark, Donald Leonard — Alta, Iowa
Jackson, T. Walter — Ames, Iowa
~~Shumway, Ronald Alan~~ — ~~Arlington, Iowa~~
Evanoff, Alexander George — Belle Plains, Iowa
Montgomery, John Richard — Belle Plains, Iowa
Maney, John Randolph — Cedar Rapids, Iowa
Acher, Chester C. — Fort Dodge, Iowa
Hudson, Charles Ross — Iowa City, Iowa
Hagemeister, Carl Rodger — Muscatine, Iowa
Boye, Arthur John — Ocheyedan, Iowa
Rodgers, Thomas Dan — Pilot Mound, Iowa
Hardy, Ronald Radcliffe — Tabor, Iowa
~~Ford, Eugene Matthew~~ — ~~West Bend, Iowa~~
Sams, Burton Kresge — Culver, Kans.
Goetz, Albert John — Dodge City, Kans.
Doile, Glen Cyril — Emporia, Kans.
Wetta, Joseph Leo — Golwich, Kans.
Bray, Burney Darwin — Kansas City, Kans.
Itz, Milford Felix — Osage City, Kans.
Stewart, Everett W. — Manhattan, Kans.
Crow, Roger McKee — Topeka, Kans.
Cranston, George Echelbary — Winfield, Kans.
Holt, James William, Jr. — Hazard, Ky.
Bosz, William Nelson, Jr. — Lexington, Ky.
Weller, William LaRue, Jr. — Louisville, Ky.
Turter, Heber Dana — Mintonville, Ky.
Foster, Franklin Marx — Nicholasville, Ky.
Whitaker, Narce — Roxana, Ky.

Williams, Adriel Newton	Shelbyville, Ky.
Lawrence, Samuel Eugene, Jr.	Baton Rouge, La.
MacDonald, Charles Henry	Baton Rouge, La.
Carlton, William Clayton	Minden, La.
Blakely, Carl Paul	Boston, Mass.
Oakley, Knox Montgomery	Boston, Mass.
Higgins, Edward William,Jr.	Arlington, Mass.
Galasco, Louis Francis	East Boston, Mass.
Ingram, Ralph	Falmouth, Mass.
George, William S., Jr.	Jamaica Plain, Mass.
McGrath, John Francis, Jr.	Jamaica Plain, Mass.
Salmela, Oliver R.	East Weymouth, Mass.
Himmer, Richard John	Lawrence, Mass.
McGowan, Louis Edward	Medford, Mass.
Minott, Albert W.	Melrose, Mass.
Timms, Howard Lister	Methuen, Mass.
Rozwene, George Stephen	Northampton, Mass.
Mason, Robert Earl	Quincy, Mass.
Nisbet, Fred Jouett	Roslindale, Mass.
Blaisdell, Louis Morton,Jr.	Springfield, Mass.
Kelley, Howard James	Worcester, Mass.
Ballard, Norman Luellen	Bay City, Mich.
Metcalfe, Duane Catlin	Columbiaville, Mich.
Hatch, Gordon James	Copemish, Mich.
Evans, Robert Chester	Detroit, Mich.
Gorman, Paul Joseph	Detroit, Mich.
Frost, Oren Sayles	East Lansing, Mich.
Lightfoot, Mark Albert	East Lansing, Mich.
Bonney, Charles Jackson	East Tawas, Mich.
Markham, Peter John	Highland Park, Mich.
Pleiss, Walter Henry, Jr.	Ludington, Mich.
Wooten, Max Henry	Owosso, Mich.
Helmer, Hal Potter	Parma, Mich.
Fonda, Edward Stanley	Albert Lea, Minn.
McNelly, Fred Wright	Anoka, Minn.
Rehmann, Orville H.	Bertha, Minn.
Habberstad, Edward C.	Blooming Prairie, Minn.
Joula, Arne W.	Eveleth, Minn.
Holst, Clayton E.	Mankato, Minn.
Dech, Keith Wesley	Minneapolis, Minn.
Gosin, Donne F.	Minneapolis, Minn.
Henning, Richard Albert	Minneapolis, Minn.
Lichter, Carl Jerome	St.Paul, Minn.
Preston, Joseph J.	St. Paul, Minn.
Baker, Albert Buford	Cruger, Miss.
Cope, Alvin Jasper	Kirkwood, Mo.
Dusard, Lee Francis, Jr.	Kirkwood, Mo.
DuNard, Luther R.	St. Louis, Mo.
~~Seeger, William George~~	~~St. Louis, Mo.~~
Campbell, Owen Thatcher	University City, Mo.
Franks, Perry Leroy	Lincoln, Neb.
Plansoon, John Louis	Belleville, N.J.
Berlinsky, Edward	Bloomfield, N.J.
Dunlap, Howard F.	Ocean City, N.J.
Henry, John Elwood	Ridgefield Park, N.J.
Ortega, Reuben Alcantar	Albuquerque, N.M.
Lane, Robert George	Hurley, N.M.
Conway, Ralph Francis	Socorro, N.M.
Laufenberg, Francis Severn	Socorro, N.M.
Bickford, Harold Davidson	Buffalo, N.Y.
Jones, Jack Carey	Dobbs Ferry, N.Y.
Wheeler, Ansel James	Genesco, N.Y.
Foltz, John Lloyd	Herkimer, N.Y.
Richmond, Frank Willis	Huntington, N.Y.
Mallinson, Hiram Royal	New York, N.Y.
Nowosacki, Theodore L.	New York, N.Y.
Carlson, Francis Bernard	Ossining, N.Y.
Chapin, Lambert	Potsdam, N.Y.
Sandell, Robert J.	West Point, N.Y.
Seymour, Rudolph Romulus	Cary, N.C.
Quintard, Edward Alexander	Charlotte, N.C.
Exum, Wyatt Patrick	Goldsboro, N.C.
Slocumb, Charles Dewey, Jr.	Goldsboro, N.C.
Gwynn, Dallas Edmund	Leaksville, N.C.
Jenkins, Francis L., Jr.	Spencer, N.C.
Byram, Dayton B.	Casselton, N.D.
Isensee, George Lorne	Fargo, N.D.
Kamins, Morton Harold	Fargo, N.D.
Kirk, Robert Warren	Fargo, N.D.
Barnick, Roland J.	Max, N.D.
MacCurdy, Robert Earle	Akron, Ohio
Sipes, Richard R.	Akron, Ohio
Helbert, James Maurice	Ashland, Ohio
Massa, Rujar J.	Bellaire, Ohio
Bellonby, Emery Ellis	Cincinnati, Ohio
Zurawski, Victor Harry	Cleveland, Ohio
Richardson, Robert Arlin	Columbus, Ohio
Nunzenmayer, Wilmer Walter	Kent, Ohio
Schurter, Orie Olin	Burlington, Okla
Anthis, Rollen Henry	El Reno,Okla.
Morse, Raymond Steel	Fort Sill, Okla.
Edwards, Jack R.	Norman, Okla.
McReynolds, John Alsup	Norman, Okla.
~~Trosper, Earl Joseph~~	~~Oklahoma City, Okla.~~
Chadwell, George Theodore	Purcell, Okla.
~~Kelly, Samuel Ed.~~	~~Tulsa, Okla.~~
Wilkins, John Campbell	Corvallis, Ore.
Beard, Robert Wallace	Eugene, Ore.
Murphy, Arthur McMurrough	Eugene, Ore.
Stickler, Lee Robinson	Enterprise, Ore.
Fisch, Ted B.	Milwaukie, Ore.
Grunseth, Roald J.	Portland, Ore.
Lasselle, Dale	Portland, Ore.
Spieth, Harry Edwin, Jr.	Portland, Ore.
McCaughey, Samuel King	Roseburg, Ore.
Milne, Jack Gillespie	Meyersdale, Pa.
Marzilli, Gaetano James	Appenaug,R.I.
Smith, Pinkham	Providence, R.I.
Hall, Andrew Lyman	Columbia, S.C.
Hornsby, Thomas William	Columbia, S.C.
Bussey, Carver Thaxton	Florence, S.C.
DuRant, Francis Hill	Georgetown, S.C.
Gandy, Roland B., Jr.	Georgetown, S.C.
~~Lake, George Lovie~~	~~Kathwood, S.C.~~
Cole, Nester Evan	Florence, S.D.
Reeve, Ralph Amos	Milbank, S.D.
Brende, Karl A.	Sioux Falls, S.D.
Pratt, Carlos Conrad	Bearden, Tenn.
Hamilton, Edward Terrell	Dallas, Texas
Lee, Leland George, Jr.	Dallas, Texas
Ragland, Richard M.	Handley, Texas
~~Mace, Albert Ramm, Jr.~~	~~Houston, Texas~~
Rector, Walter Stokes	Houston, Texas
Sisk, Eugene B., Jr.	Houston, Texas
Barham, James Carlton	Houston, Texas
Dew, Elkin Standifer	Kingsville, Texas
McCoy, Charles Hirth	Longview, Texas
Latham, John E., Jr.	Marble Falls, Texas
Whelens, Hewitt Terrell	Menard, Texas
Gordon, Henry Lee	Mobeetie, Texas
Gregory, Lyman	Quanah, Texas
~~Nendell, Jack A.~~	~~Randolph Field, Texas~~
Dahlberg, Charles William	San Antonio, Texas
Barekman, Joseph Anderson	Stephenville, Texas
Cox, Ray Lawrence	Vernon, Texas
Lamberth, Ivey Earl, Jr.	Waco, Texas
Tarrant, Yancey Smith	Waco, Texas
Ort, Rudolph King	Wichita Falls, Texas
Bowen, Allen Culbert	Salt Lake City, Utah
Kershner, Maurice Irving	Burlington, Vt.
Cate, Elbert Murray	Plainfield, Vt.
Smith, Charles John	Rutland, Vt.

Hendrix, William Murray, Jr.	Fort Belvoir, Va.
May, William Minor	Goshen, Va.
Darling, Henry B., Jr.	Lexington, Va.
Jeffrey, Thomas Stanley	Lexington, Va.
Stewart, Robert William, Jr.	Norfolk, Va.
Tokarz, Clemence Paul	Fort Richmond, Va.
Cottrell, Robert Stuart, Jr.	Richmond, Va.
Pancake, Frank Robins	Staunton, Va.
Reed, Charles Wesley	Raymond, Wash.
Cone, Sidney Loyd	Seattle, Wash.
Penchos, Kenneth George	Seattle, Wash.
Martin, Maurice Leslie	Vancouver, Wash.
Fitzwater, John Timothy	Buckhannon, W. Va.
Sullivan, Edward Michael	Buckhannon, W. Va.
Williams, John Brunson	Buckhannon, W. Va.
Bohensky, John William	Clarksburg, W. Va.
Cunningham, Joseph Eustin	Clarksburg, W. Va.
Moore, Kenneth Charles	Clarksburg, W. Va.
Bumgarner, Herbert Cecil	Elizabeth, W. Va.
Dye, Joseph Watson	Elkins, W. Va.
Goetz, Louis Raymond	Fairmont, W. Va.
Wood, Paul Davis	Fairmont, W. Va.
Bowen, William S.	Huntington, W. Va.
Core, Earl Fleming, Jr.	Morgantown, W. Va.
Dawson, James Stenger	Morgantown, W. Va.
Lippucci, Fred Henry	Morgantown, W. Va.
Barker, Clyde Edward	Parkersburg, W. Va.
Slayton, Earl William, Jr.	Parsons, W. Va.
Spavock, Michael, Jr.	Rivesville, W. Va.
Greathouse, Carroll A.	Weston, W. Va.
Gabert, Stanley Ralph	Egg Harbor, Wis.
Zelinsky, Raymond Portman	Ladysmith, Wis.
Hahn, Delbert	Milwaukee, Wis.
Seifert, Frederick Floyd	Milwaukee, Wis.
Pike, Harry MacCulloch	Portage, Wis.
Holdrege, George H.	Thermopolis, Wyo.

Additional Appointments

Norris, Robert Parks	Banks, Ala.
Riddle, Samuel S., Jr.	Birmingham, Ala.
Page, Jerry Dentler	Los Angeles, Calif.
Hubbard, Thomas Harvey	San Diego, Calif.
Ruggles, John Howard	San Francisco, Calif.
Danley, James Ramey	West Los Angeles, Calif.
Goodman, David Weiss	Hartford, Conn.
Peterson, Willys Richard	Hartford, Conn.
Blandy, John Frederic	Manchester, Conn.
Paletz, S. Arthur	Washington, D.C.
Rosasco, Henry P.	Washington, D.C.
Roberts, Harold Halcombe	Bartow, Fla.
Brownlow, Paul Jerry	New Holland, Ga.
Birchenough, John Linfield	Decorah, Iowa
Walden, David Carroll	Brunswick, Me.
Simpson, John G.	Chevy Chase, Md.
Benton, Fred Warren	Everett, Mass.
Dane, Clyde	Lynn, Mass.
O'Connor, Robert G.	Northampton, Mass.
Raymond, Harry Kendall	Peabody, Mass.
Barry, Arthur A.	Revere, Mass.
Bates, Albert W.	Worcester, Mass.
Goicz, Francis John	Worcester, Mass.
Fletcher, Maurice William	Clarksdale, Miss.
Harner, Robert Waldo	Newton, Miss.
Haller, John Thomas	Orange, N.J.
Brown, Paul Douglas	West Orange, N.J.
Swift, Albert Benjamin	Akron, Ohio
Venable, Eugene Roane	Roanoke, Va.
Nolan, Andrew B., Jr.	Wellsburg, W. Va.

Since the original list of Flying Cadet appointees was prepared, the following-named candidates have, for various reasons, declined appointment, viz:

Moore, Lloyd E.	Dumas, Ark.
Nickels, Clabourne W.	North Little Rock, Ark.
Larkin, Edward A.	Los Angeles, Calif.
Murray, Samuel Fenton	Palo Alto, Calif.
Inman, Clyde Richard	Fayette, Idaho
Shumway, Ronald Allen	Arlington, Iowa
Ford, Eugene Matthew	West Bend, Iowa
Seeger, William George	St. Louis, Mo.
Trosper, Earl Joseph	Oklahoma City, Okla.
Kelly, Samuel Ed.	Tulsa, Okla.
Lake, George Lovic	Kathwood, S.C.
Mace, Albert Ramon, Jr.	Houston, Texas
Nendell, Jack A.	Randolph Field, Texas
Dawson, James Stenger	Morgantown, W. Va.

The total number of candidates thus far selected for appointment as Flying Cadets to begin training at the Primary Flying School at Randolph Field, Texas, on July 1, 1938, is 341 (including nine enlisted men of the Regular Army, who were listed in the previous issue of the Air Corps News Letter). This figure constitutes the largest number of students ever to begin training in any class in the history of the Air Corps Training Center.

For the first time in its history, Illinois has taken the lead in the matter of State representation among the students of a new entering class at the Air Corps Training Center. Top honors in this respect were usually a nip and tuck affair between California and Texas. Illinois is represented by 26 students, closely followed by Massachusetts, a brand new contender for top honors, with 24 students. California is next with 19 students; Texas and West Virginia with 18 each; Indiana with 15; Iowa, Michigan and Minnesota with 12 each, and New York with 10. The remaining States represented in the new class are credited with less than ten students each.

Chicago, keeping in step with her State, leads the cities represented in the new class, with 9 students, followed by Washington, D.C., with 8; Denver, Colo., with 7; Los Angeles, Calif., with 6, and Clarksburg and Buckhannon, W.Va.; Boston, Mass.; Pasadena, Calif.; Akron, Ohio; Minneapolis, Minn.; Portland, Oregon; Houston, Texas, and West Lafayette, Ind., with 3 each.

A year of intensive training is ahead of the students of this new class. The course of training is divided into three stages, the primary and basic stages, each of four months' duration, being given at the Primary Flying School at Randolph Field, Texas, and the advanced stage, also of four months' duration, at the Advanced Flying School at Kelly Field, Texas.

Those students who successfully complete the year's course are given the rating of "Airplane Pilot," commissioned second lieutenants in the Air Reserve, and assigned to extended active duty with Air Corps tactical organizations. This active duty tour is for a period of three years. Provided their services have been satisfactory, these Reserve officers, if they so elect, may be assigned for a further active duty tour of two years. They are promoted to first lieutenant after three years' service.

V-7755, A.C.

TRAINING ACTIVITIES IN HAWAII

As the month of May drew to a close, the 4th Reconnaissance Squadron, Luke Field, T.H., was assigned an interesting cooperative mission with the 16th Gun Battery at Fort Kamehameha. The mission calls for accurate locating of targets at ranges from 35,000 to 45,000 yards, and then adjustment of fire on these targets. No definite method has ever been used for locating a target at these ranges, using aerial observation, and these missions are both a test of methods as well as a firing mission for the Army's largest guns.

The remainins efforts of the Squadron are being bent on bomb training, and up to this writing about fifty bombs have been dropped. It is expected that this bomb training will be carried to completion.

Plans are being made for a gunnery camp at Bellows Field, Waimanalo, starting, possibly, June 20th.

On the morning of May 16th, seven B-12 airplanes of the 50th Reconnaissance Squadron, led by Captain Homer W. Ferguson, winged their way northwesterly to Burns Field, Kauai, for the first taste of maneuvers in 1938. The personnel included nine officers and thirty-four enlisted men.

All equipment for the week's stay was flown up on the first flight, and two airplanes made a second trip to ferry the rest of the personnel. Monday and Saturday were devoted to making and breaking camp, respectively.

Operations for the period consisted of reconnaissance flights on the Islands of Kauai and Niihau. Aerial machine gunnery practice was conducted also. One mission of formation gunnery was flown, firing at a range of from 1,000 to 1,500 feet.

"Kauai can well be called the Garden Isle," asserts the News Letter Correspondent. "Several sight seeing trips showed us some of nature's beauty on the island. We are looking forward to more maneuvers at Burns Field, Kauai, next year."

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ASSIGNMENT OF TECHNICAL SCHOOL GRADUATES

Under Special Orders of the War Department, recently issued, the following-named Air Corps officers, upon the completion of their present course of instruction at the Air Corps Technical School, Chanute Field, Rantoul, Ill., are assigned to Air Corps stations, as follows:

To Langley Field, Va.: 1st Lieuts. George B. Dany, John W. White, 2nd Lieut. Jasper N. Bell.

To Chanute Field, Ill.: 1st Lieuts. Byron E. Brugge, Travis M. Hetherington, Samuel A. Mundell.

To Selfridge Field, Mich.: 1st Lieut. Clayton E. Hughes.

To March Field, Calif.: 1st Lieuts. Charles B. Dougher and William R. Morgan.

To Fort Riley, Kansas: 1st Lieut. Vernon C. Smith, for duty with the 1st Observation Squadron.

To Mitchel Field, N.Y.: 1st Lieut. George F. Hartman.

To Bolling Field, D.C.: 1st Lieut. James McK. Thompson.

To Randolph Field, Texas: 1st Lieuts. Frank G. Jamison, Richard M. Montgomery and 2nd Lieut. Burton W. Armstrong, Jr.

The station assignments of graduates from the Denver Branch of the Air Corps Technical School are as follows:

To Brooks Field, Texas: 1st Lieut. Donald L. Hardy.

To Barksdale Field, La.: 2nd Lieut. Joseph C. Moore, 1st Lieut. Thomas R. Starratt.

To March Field, Calif.: 1st Lieut. William L. Travis.

To Selfridge Field, Mich.: 1st Lieut. John C. Kilborn.

To Hamilton Field, Calif.: 1st Lieut. Jerald W. McCoy.

To Langley Field, Va.: 1st Lieut. Jarred V. Crabb.

To Randolph Field, Texas: 1st Lieut. Melie J. Coutlee.

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DETAILS TO AIR CORPS ENGINEERING SCHOOL

Ten Air Corps officers are under orders for duty as students at the Air Corps Engineering School, Wright Field, Dayton, Ohio, in the 1938-1939 course. They are relieved from assignment and duty at their present stations at such time as to enable them to report to the Commandant of the Air Corps Engineering School not later than August 1, 1938, viz:

Captain Bryant L. Boatner, from Barksdale Field, La.

1st Lieut. Carl A. Brandt, Hamilton Field, Calif.

Captains George J. Eppright and Alfred R. Maxwell, Wright Field, Ohio.

1st Lieuts. Carl F. Damberg and Edward J. Hale, upon completion of their present course of instruction at the Air Corps Technical School, Chanute Field, Rantoul, Ill.

2nd Lieut. Edward M. Gavin, Barksdale Field, La.

2nd Lieut. Frank N. Moyers, Barksdale Field, La.

1st Lieut. Richard J. O'Keefe, Chanute Field, Ill.

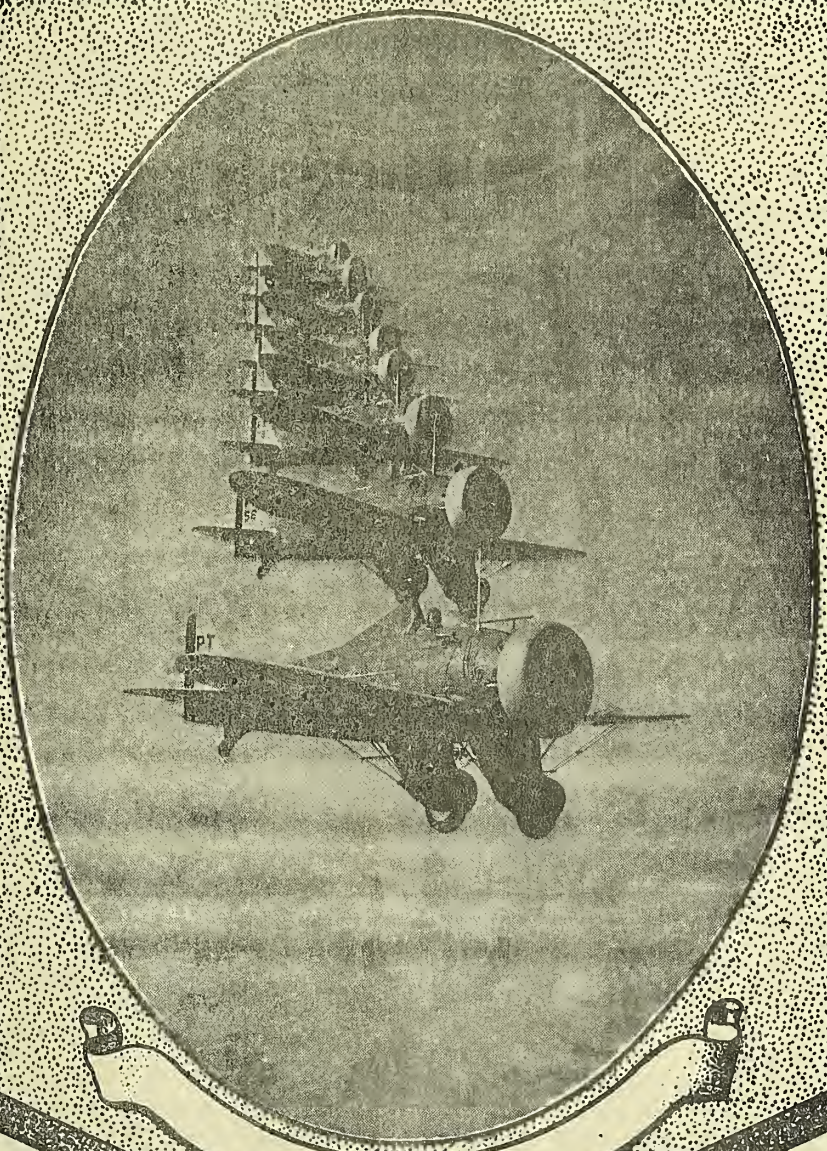
1st Lieut. Francis M. Zeigler, Randolph Field, Texas.

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The 1st Observation Squadron, Marshall Field, Fort Riley, Kansas, was honored by a visit from Brigadier General Henry H. Arnold, Assistant Chief of the Air Corps, on June 10th. He inspected the station and then left for Cheyenne, Wyo.

AIR CORPS

NEWS LETTER



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WAR DEPARTMENT WASHINGTON, D.C.

VOL. XXI JULY 1, 1938 NO. 13

VOL. XXI AIR CORPS NEWS LETTER NO. 13

Information Division, Air Corps — July 1, 1938 — Munitions Building, Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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A PROTECTION AGAINST NIGHT BLINDNESS

By Major John Hargraves, M.C., (Flight Surgeon)
Director of the Department of Opthalmology,
School of Aviation Medicine.

THE phenomena of vision begins with a complex photo chemical reaction in the substance of the retina or sensitive coat of the eyeball.

The substance which light acts upon to produce the sensation of vision is called visual purple. This substance is chemically related to carotene, crypto xanthin and vitamin A.

It is definitely known that deficiencies in the consumption or the utilization of vitamin A or its precursor carotene results in a decrease in the light sensivity of the retina, with a resulting loss of visual efficiency, particularly at night.

Vitamin A is abundant in many foods and we would expect individuals who live on the economic plane of pilots to have adequate vitamin containing diets. However, recent investigations have shown that vitamin A deficiencies of varying degrees occur with great frequency in individuals over forty years of age. This could be explained in several ways:

1. The older individual becomes more set in his dietary habits and may not eat foods which contain the vitamin;
2. The older individual reaches the age where there is a tendency toward obesity, and consciously or subconsciously to retain his figure avoids certain foods, such as milk, cream, butter, etc., which are a rich source of vitamin A;
3. The processes of age increase the density of the liver and also decrease the absorptive qualities of the gastro-intestinal tract so that the consumed vitamin is not utilized. Vitamin A does not store well, which makes it necessary to replenish it daily.

It is recommended that as a prophylactic and protective measure, all pilots above the age of thirty-five include in their daily diet foods which will contain 4,000 international units of vitamin A. (The exact quantitative requirements are as yet unknown, but 2,500 international units are considered essential for the average normal adult.

This amount of vitamin A can be obtained from the daily consumption of two cooked leafy vegetables, such as spinach, sprouts or cabbage; one uncooked leafy vegetable, such as lettuce and the drinking of one quart of milk (providing the cows have been fed on green fodder).

Other sources of vitamin A are butter, egg yolk, animal fats, liver, apricots, carrots, green beans, green peas, sweet potatoes, and pumpkin. Halibut Liver Oil is the richest source, also the old reliable cod liver oil. One tablespoonful of cod liver oil will give an ample daily dosage of vitamin A. There are also many concentrates of vitamins marketed by the various drug houses and obtainable in the form of capsules. Usually one capsule contains the required amount of vitamin for one day.

Of interest in connection with the above is a report by Drs. Ralph C. Wise and O.H. Schettler, which appeared in the June issue of the Ohio Medical Journal, to the effect that eyestrain and fatigue, common complaints among those doing work that requires close attention, have been relieved among color matchers of the Westinghouse Electric and Manufacturing Company by daily doses of Carotene-in-oil, a source from which the body manufactures vitamin A.

Three capsules of carotene-in-oil daily, they declare, by speeding up the regeneration of visual purple, light-sensitive substance in the eye, have improved the efficiency of color-matching inspectors by 75 per cent.

Color inspectors of the company had long complained of severe headaches, burning and smarting eyes. Many of them declared they were unable to read in the evening after work or stated that they actually feared night driving. These conditions have now been changed by use of the new treatment is the assertion of Dr. Wise, an eye specialist, and Dr. Schettler, of the medical department of the above-named company.

Basis for giving the carotene-in-oil

is the fact that visual purple, the light-sensitive substance in the retina of the eye, is decomposed in the process of seeing and can be regenerated only in the presence of vitamin A. Dosing with carotene in effect increases the body's supply of vitamin so essential to proper vision. Lack of vitamin A is known to be a cause of night blindness, an eye defect held responsible for a large share of the mounting toll of night automobile accidents.

An interesting by-product of the tests, which Dr. Wise expects to repeat elsewhere, was an appreciable improvement in the health of the workers treated, particularly in cases where fatigue, headaches and eye-strain were chronic. Several workers reported gains in weight.

The eye-strain is produced not only by the close application of the eyes required, but also by the unusually bright light in which the work must be done. This light, the doctors note, has a tendency to destroy visual purple and reduce the "light threshold." Through measurements conducted with special equipment it was shown that the rate of regeneration of visual purple was increased.

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The graduation exercises for the 1937-1938 Class at the Army War College, took place in the auditorium of that institution on Wednesday morning, June 22nd. The exercises consisted of the Invocation by Colonel Wm. R. Arnold, Chief of Chaplains, U.S. Army; a short introductory speech by Major General John L. DeWitt, Commandant of the Army War College, followed by the principal address delivered by the Hon. Louis Johnson, Assistant Secretary of War, who also presented the diplomas. Among the 81 graduates were the following-named Air Corps officers:

Lieut. Colonel Hubert R. Harmon
Major John DeF. Barker
Major W. R. Carter
Major I. H. Edwards
Major L. P. Hickey
Major H. A. Johnson
Major A. J. Lyon
Major A. W. Martenstein
Major J. Y. York.

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A total of 38 Air Corps officers graduated on Monday, June 20, 1938, from the Command and General Staff School at Fort Leavenworth, Kansas. The guest of honor at the graduation exercises for the 1937-1938 Class was the Hon. Louis Johnson, Assistant Secretary of War, who delivered an address and presented the diplomas to the graduates. Chaplain Milton O. Beebe, U.S. Army, delivered the Invocation, and Chaplain L. Curtis Tiernan, U.S. Army, the Benediction. The graduating Air Corps officers are listed below, as follows:

Lieut. Colonels

Floyd E. Galloway	Leo A. Walton

Majors

Orvil A. Anderson	George C. McDonald
George H. Beverley	Clements McMullen
Eugene L. Eubank	John W. Monahan
Frederick W. Evans	Bob E. Nowland
Harold H. George	Ray L. Owens
Barney M. Giles	Younger A. Pitts
James D. Givens	Robert M. Webster
Theodore J. Koenig	Ennis C. Whitehead
Milo McCune	F.M. Hopkins, Jr.

Captains

Earl W. Barnes	Joe L. Loutzenheiser
James M. Bevans	Edmund C. Lynch
Lawrence J. Carr	John F. McBlain
Uzal G. Ent	Earle E. Partridge
Donald F. Fritch	James S. Stowell
Kirtley J. Gregg	Yantis H. Taylor
Robert W. Harper	Wallace E. Whitson
John R. Hawkins	W.R. Wolfinbarger
Joseph G. Hopkins	

1st Lieut.

William A.R. Robertson

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The graduation exercises of the 1937-1938 Class of the Army Industrial College were held on Thursday morning, June 23, 1938, in the auditorium of the Public Health Service, Washington, D.C.

The exercises consisted of the Invocation by the Chief of Chaplains, Colonel William R. Arnold; a short introductory speech by Colonel Harry B. Jordan, Director of the School, followed by the principal address delivered by the Hon. Louis Johnson, Assistant Secretary of War.

Of the 56 graduates, eight were Air Corps officers, viz:

Majors Shiras A. Blair, Don L. Hutchins, Clarence P. Kane, John A. Laird, Jr., Malcolm S. Lawton, Edward M. Powers, Robert T. Zane and Captain Julian B. Haddon.

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The following-named Air Corps officers were given temporary promotions in the grades indicated:

To Colonel: Lieut. Colonel Percy E. Van Nostrand, from June 17, 1938.

To Lieut. Colonel: Major Frank H. Pritchard, from June 17, 1938; Major Idwal H. Edwards, from June 17, 1938.

To Major: Captain Randolph P. Williams, from June 17, 1938.

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Effective June 1, 1938, Lieut. Colonel William H. Crom (temporary) was promoted to the permanent rank of Lieut. Colonel, and Major Perry Wainer (temporary) to Major. Major William S. Gravely (Capt.) was promoted to the permanent rank of Major, effective June 19, 1938.

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GRADUATION EXERCISES AT ADVANCED FLYING SCHOOL
By the News Letter Correspondent

GRADUATION exercises for Class No. 38-B (consisting of two Regular Army officers, one Siamese officer, one Mexican Army officer, four Philippine Army Air Corps officers, and eighty-eight Flying Cadets, Air Corps, were held at the Air Corps Advanced Flying School, Kelly Field, Texas, on Thursday, June 16, 1938, before a record crowd, which has been estimated at between 4,000 and 5,000 spectators, including Brigadier General James E. Chaney, Commanding General of the Air Corps Training Center; Brigadier General Lesley J. McNair, Commanding General of the 2nd Field Artillery Brigade; Brigadier General C.F. Humphrey, Jr., Commanding General of the 3rd Brigade, Fort Sam Houston; approximately 400 Reserve officers; 400 ROTC students, undergoing two weeks' active duty at Camp Bullis; and 400 soldiers of less than one year's service from the Second Division at Fort Sam Houston, as well as the entire membership of the Basic Stage of the Air Corps Primary Flying School at Randolph Field, Texas.

Following the usual inspection on the flying line by Colonel Frank D. Lackland, Commandant of the Advanced Flying School, and members of the School Faculty and Staff, an impressive aerial review was flown by the graduating class. This review won a great deal of praise from the reviewing party, as well as from the great number of spectators and the local press.

There followed then the usual exercises at the Post Theater, which was filled to capacity and which could not accommodate several hundred additional spectators who wanted to enter. General Chaney introduced the speaker, General McNair, who, after making a very interesting and instructive speech, presented the graduating class with their diplomas amid the usual ovation of the audience.

The 88 graduating Flying Cadets were commissioned second lieutenants, Air Reserve, on June 16, 1938, and ordered to extended active duty at Randolph Field, where they will await orders for their permanent assignments with tactical units of the Air Corps. The names of these graduates were published in the previous issue of the News Letter.

Orders have been issued covering the duty assignments of the two officers of the Regular Army who graduated with this class. Major Lawrence A. Lawson departed on June 19th for his new station, Lowry Field, where he will be on duty with the Denver Branch of the Air Corps Technical School at that station. First Lieut. Joseph E. Barzynski, who was transferred to the Air Corps from the Infantry, left on June 21st on leave of absence prior to reporting at Mitchel Field, N.Y., where he has been assigned to duty with the 97th Observation Squadron.

With respect to the six foreign officers who graduated with the class, authority was received from the War Department attaching the four second lieutenants of the Philippine Army Air Corps to tactical units of the U.S. Army Air Corps, where they will remain until they receive orders to proceed to Chanute Field and Lowry Field to undergo instruction at the Air Corps Technical School in the various officers' courses, viz:

Andres O. Cruz to a Bombardment unit at March Field, Calif.

Isidro J. Paredes to the 22nd Observation Squadron at Brooks Field, Texas.

Eustacio D. Orobia to a Pursuit unit at Barksdale Field, La.

Ramon M. Zosa to an Attack unit at Barksdale Field, La.

These officers left Kelly Field on June 20th for the stations indicated, and expressed their pleasure and good fortune in their attachment for tactical training with Army Air Corps units.

Captain Cabanas and Lieut. Suriya departed for their respective countries, the former going direct to Mexico City, and the latter, after a brief stop at Washington, D.C., to report to the Siamese Legation for further instructions, being bound for England.

General McNair's address is quoted below, as follows:

"General Chaney, Colonel Lackland, members of the instructional staff, and young officers of the graduating class: First of all, I want to say how sorry we all at Fort Sam Houston are that General and Mrs. Chaney are leaving. They are both grand people, and we are going to miss them. I know that you all here feel the same - and then some.

"You have honored me today, and I appreciate it more than I can express. I only wish that my words could do justice to the occasion as it appeals to me. The review was one of the most inspiring spectacles I have ever witnessed - one that I shall never forget.

"My experience with graduating exercises - both as a student and as a graduate - tells me that the graduates at least are for shorter and snappier exercises, which recalls a recent incident at Fort Sam Houston. Father came home and informed the family that he was to speak on a certain occasion, and added, 'I don't see why they asked me, I don't know what to talk about.' Young daughter piped up promptly. 'Talk about a minute, Daddy.' And out of the mouths of babes and all that.

"In coming to this citadel of the Air

Corps, I realize at the outset that I can offer no words of air-wisdom; you know a lot more than I do; but I claim one small distinction - my service in the Army extends over the entire lifetime of the Air Corps, including its embryonic days as a mere section of the Signal Corps. So that, while I never was in the Air Corps, I have grown up alongside of it - in both peace and war. I have seen its struggles at close range - which makes more vivid and romantic the picture of air-might as we have it today.

"My brief remarks today are addressed to you as officers, not merely of the Air Corps, but of the Army as a united whole. And the Army cannot hope for success, unless it is in fact a united whole - trained and ready to carry out the will of one man - its commander. There can be no division of purpose in action - no working at cross-purposes - if we are to win a decisive struggle. No one arm can win by itself; each must do its part in working out the complete pattern.

"You young gentlemen have just completed a year of air training - probably the finest in the world, certainly in this country. But, like all school work, it has been curricular. You have been told what to do and how to do it. Skilled instructors have watched over you and guided you.

"Now the scene changes. You take your places in a great organization, every element of which has an essential function - a duty, a mission to perform. While it is true that commanders will direct you, the direction will consist largely of giving you a job to do, either as an individual or with a unit under your command. You no longer will have an instructor at your elbow. You must go to it on your own. You must apply the training you have received here in obtaining useful, productive results.

"I could wish you no greater success than to be able to report each task completed - each mission accomplished. But it will not be so - life is not like that. Sometimes you will succeed, and sometimes you will fail. You will make hits, and you will strike out. The question is what will be your batting average.

"It always has seemed to me that there are two prime requisites in carrying out a mission - first, to understand the mission, and second, to do just that - not something else. It sounds easy and simple, but all experience - ground as well as air - denies it. In every applicatory exercise when I was at the War College, the Commandant required us to post a placard on the wall, stating our mission, hoping to reduce in some degree the number of cases when the mission was either mangled or forgotten. I served at GHQ in France during the War, when the Air Corps - then the Air Service - still was pretty young and raw. I can say frankly that there was no little sentiment to the effect that it was pretty much of a gamble what the airman would do when he left the ground - whether he would keep his eye on the ball, or go off on a tangent. About 1925 or so, the President's Morrow Board, investigating air questions on a broad front, heard the testimony of one Captain Rath, one of our veteran bombers. He stated in effect that, if a bombing formation encountered anti-aircraft fire before reaching its objective, it lost no time in dropping its load and going home. Far be it from me to contend that nothing can or should prevent the airman from accomplishing his mission - for the obstacles may be insuperable. But there is no question that in war you are going to face the decision as between going ahead or turning back, doing or not doing. Any many such decisions will not be easy. In the stress of war - especially in the air - the decision is bound to be influenced by your fixed habits of thought and action. If you school yourself through the years to look upon the accomplishment of your mission as something sacred and inviolable, it inevitably will be reflected in increased - perhaps decisive - effectiveness. The ever-increasing power of the Air Corps will cause commanders to expect more and more of it - to lean on it heavily - especially at critical times; and it becomes the more important that you carry out your mission exactly, if it is humanly possible. This indispensable attribute is in fact the highest form of discipline - the determination to do the job because it has been ordered. It is a form of discipline which comes from the heart and mind, not from drill-ground ceremonial - however important that may be.

"One more thought. You have every right to be proud of your Air Corps; the Army is proud of it. You must believe in its power, and make the most of it. Youth should have its visions of greater things, and strive to realize them. But, at the same time, you must look into those visions, and ask whether they can be made realities or must remain only visions. I served on a board of officers in Hawaii in 1923, to investigate bombing and anti-aircraft firing. The young bombers were enthusiastic at the prospect of demonstrating their skill and power. The tests began. Bombs were dropped at a target, and the points of fall measured carefully. When the flyers saw their patterns, they were shocked; they refused to believe that they had not come closer to their target. It was necessary after that to have some of their number on the ground, in order to convince them of the facts. Actually, it was not that the practice was poor - judged by standards in those days. The fact was that the airmen had thought

themselves too good; just as their older cousins - the artillerymen - had found, in their own case, they were capable of making some goodly errors. Perhaps these bombers were not intellectually dishonest - merely ignorant in a sense - but the result was the same in either case - a false conception of one's own capabilities and limitations. I beg of you to know yourself and your weapons, and to be frank among yourselves and with the rest of the Army. The Army will believe what the Air Corps says it can do, and will rely on it. If its prowess is exaggerated, through whatever cause, disillusionment surely will come with war. I may add that this same condition existed in the artillery - my native arm - until the war showed that things were not as easy as they looked on the target range.

"And so the two thoughts that I'd like to leave with you as you join the Air Corps are to carry out your mission, and to be informed and honest as to your capabilities and limitations.

"Gentlemen of the graduating class, you are about to become what everyone for years has known as a 'Kelly Graduate' - a mark of great distinction. You have had your troubles with a most rigid and exacting course. You have survived as others fell by the wayside. Now what are you going to do? Are you going to rest on these laurels, or are you going on? It's an old question. I now have lived long enough to see careers worked out to the end - knowing the individuals intimately all the while. The striking thing is that the graduate whom everyone considered the fair-haired boy is not always the big shot 5, 10 or 20 years later. He considered himself a finished product on graduation. His fellowman just kept right on plugging through the years. In the end, we find the prodigy about where he started. The old plugger shows the accumulated progress of years. It is hard to believe that the two started together. Yet, if one looks at the whole picture, the answer is inevitable. I realize that some of you will plug harder than others, some of you are abler than others. But all of you as graduates of this course surely have the ability to make a lot of yourselves, if you only keep on developing. Especially at this time, you are most fortunate in having within your reach a commission in the Regular Army - a goal so many have sought in vain, simply because the necessary vacancies were not available.

"So now your work at Kelly is over; success will be yours, not for the asking, but by the old road of good, hard work at the daily tasks as they come along. More power to you - and the best of luck."

Commendation on the conduct of the graduation exercises on June 16th was expressed by Brigadier General James E. Chaney, Commanding General of the Air Corps Training Center, in an official communication to the Commandant of the Air Corps Advanced Flying School, Kelly Field, Texas, dated June 16, 1938, as follows:

"1. The graduation exercises at the Air Corps Advanced Flying School on June 16, 1938, gave every evidence of careful planning, intelligent supervision, and efficient execution on the part of yourself, your staff, and the officer and enlisted personnel of your command.

"2. The student flying in the aerial review was indicative of thorough training. The efficient handling of large visiting detachments of Reserve officers, R.O.T.C. students, and enlisted men from Camp Bullis and Fort Sam Houston, the imparting to them of information on Air Corps equipment, and the efficient and courteous handling at the same time of large numbers of civilians all reflected the high standard of efficiency existing in your command.

"3. It is desired that this be brought to the attention of all members of your command in order that they may know that their thorough and efficient performance of duty has been recognized and appreciated by higher echelons of command."

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ADVANCED SCHOOL CLASS LARGEST IN HISTORY

Anticipating the arrival on June 27, 1938, at the Air Corps Advanced Flying School, Kelly Field, Texas, Class No. 38-C (the largest in the history of the school), preparations have been under way for some time to receive them. This class will consist of 66 Regular Army officers and 85 Flying Cadets, a total of 151 students.

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"OLD TIMER" LEAVES 12TH SQUADRON

The 12th Observation Squadron, stationed at Fort Knox, Ky., recently lost Master Sergeant Robert Duke, Air Corps, who has been transferred to the Philippines for duty. This veteran noncommissioned officer has the distinction of serving with the 12th Squadron through all the grades from buck private to Master Sergeant. He served as First Sergeant of this organization for 7½ years and seemed an inseparable part of it.

A farewell dinner was tendered Sgt. Duke by the officers and men of the Squadron. General Van Voorhis, the Commanding General of Fort Knox, Ky., officiated and cited Sergeant Duke as an exemplary soldier and an inspiration for all young men in the service.

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During May, 1938, the Engineering Department of the San Antonio Air Depot, Duncan Field, Texas, overhauled 19 planes and 55 engines and repaired 65 planes and 26 engines.

STANDARDIZATION OF WRECKING TRUCK

The Type C-2 wrecking truck has been standardized. This truck is of the tractor-trailer type, the tractor being equipped with an integrally mounted 10-ton capacity boom crane, a 2500-watt, 110-volt alternator, underslung drum type winch mounted at the rear of the tractor, and two 10-inch floodlighting projectors. The crane with a 15-foot boom may be utilized at airdromes for normal maintenance of airplanes in addition to its salvaging purposes. The 2500-watt alternator will permit the use of standard hand electric tools in the field to facilitate salvage and repair of airplanes.

Wrecked aircraft may be retrieved from swamps, ravines, and other inaccessible areas by means of the underslung winch. The floodlights and projectors are of the wide-angle type, enabling operation at night. A lower fifth wheel is mounted on the tractor chassis for the coupling of a semi-trailer.

The semi-trailer is of the stake and platform type. The loading platform is eight feet wide by forty feet long. There is a skid rail at the rear of the platform. The laden height of the platform will not exceed 43 inches. This will permit transportation of complete fuselages through average underpasses. A tool compartment of ample capacity is located at the forward end of the trailer.

The tractor and trailer are equipped with truck and bus balloon-type tires and air pressure operated brakes. A clearance lighting system conforming to Interstate Commerce Commission regulations is provided in order that operation of the vehicle may not be restricted. A convertor dolly, which may be carried on the trailer or towed at the rear, makes it possible to maneuver the trailer by means of military trucks or tractors.

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SECOND AUTOGIRO CLASS

The second course of instruction in Autogiro Maintenance and Operation started on June 8th at Patterson Field, Fairfield, Ohio, under the able direction of 1st Lieut. H.F. Gregory, assisted by 2nd Lieuts. E.S. Nichols and J. V. Wilson.

The student pilots are second lieutenants G.R. Smith, of Langley Field, Va.; J.K. Arnold, Brooks Field, Texas; W.C. Barrett, Mitchel Field, N.Y.; V.R. Haugen, Marshall Field, Fort Riley, Kans., and N.L. Peterson, Godman Field, Ky.

The enlisted mechanics are Sergeants J.R. Ellett, of Langley Field, Va., G.W. Money, Marshall Field, Kans.; Privates C.L. Liles, Post Field, Fort Sill, Okla., and J.E. Wright, Lawson Field, Fort Benning, Ga.

WEST POINT CADETS AT MITCHEL FIELD

During the period June 18th to July 9th, 456 West Point Cadets, Class of 1939, are receiving a practical taste of the way Uncle Sam employs his air forces at Mitchel Field, N.Y. Due to the scarcity of airplanes and the lack of ample housing facilities, the cadets are receiving their training in three echelons, each echelon remaining for a period of one week.

Enlisted personnel of the 9th Bombardment Group, stationed at Mitchel Field, turned over their barracks to the Cadets and moved into the 97th Observation Squadron hangar, where temporary facilities were installed for their accommodation.

Mornings are devoted to various phases of flying, such as Orientation, Observation, Navigation, and a demonstration of the manner in which a Bombardment squadron bombs a given target. Each cadet receives approximately eight hours of flying. The afternoons are devoted to lectures and interesting excursions to the various activities about the post.

The cadets display keen interest in military aviation. In addition to scheduled flights, they are devoting their leisure time to flying with regular scheduled flights, including night missions.

On Wednesday afternoon of each week, a picnic is held at Jones Beach, New York State's largest bathing beach. Each Thursday evening a Tea Dance is given at the Officers' Club from 6:00 to 11:00 o'clock, in honor of the Cadets and their guests.

The tennis courts, bowling alleys and swimming pool were placed at the disposal of the Cadets during off duty hours.

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BOMBING PLANES INTERCEPT LINER AT SEA

Langley Field officers reported that on June 12th three "Flying Fortresses" of the Second Bombardment Group at that station, while on a routine training flight, intercepted the SS "Queen of Bermuda" about 300 miles at sea, exchanged greetings with the ship and returned to the home airdrome.

The three planes, with Majors Caleb V. Haynes, Edwin R. McReynolds and Captain Archibald Y. Smith at the controls, left Langley Field at 10:00 a.m., and were back at 5:30 p.m.

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Two Air Corps officers, 1st Lieuts. Thetus C. Odom and Wm. P. Eckert, are under orders for duty as students to pursue the course of instruction at the Harvard Graduate School of Business Administration, Cambridge, Mass. Lieut. Odom has been undergoing a course of instruction at the Air Corps Technical

(Continued on Page 7)

THE TYPE C-6 OBSERVATION BALLOON

The Type C-6 observation balloon represents the latest Air Corps endeavor for improving this type of equipment. Observation balloons were employed quite extensively during the World War, and are still regarded valuable for certain specialized methods of observation.

This new balloon somewhat resembles the present standard C-3 captive balloon, except that it depends for stability upon four fins, similar in construction to the tail surfaces of an airplane, instead of the three balloon fabric, air-inflated lobes of the older type. The aerodynamic characteristics of the C-6 balloon are definitely superior to those of previous types. It can be operated either as a captive or motorized balloon, and is converted from one form to the other in a few minutes.

When performing its prescribed mission of observation for the regulation of artillery fire, a cable containing a telephone wire center is attached, and the observers in the basket, which serves as a stationary elevated platform, are able to converse, via telephone, with the ground organization for whom they are observing. The telephone communication system, which is the most dependable method of communication, is one of the outstanding features of balloon observation. In addition, due to the absence of vibration, powerful field glasses can be used for observation work and a very high degree of accuracy obtained.

Upon completion of the observation mission, the balloon is hauled to the ground where the basket is detached and a small car, equipped with an 85-horsepower engine, is attached. The balloon is then flown under its own power to a location 25 to 30 miles in the rear. This method of transporting the balloon in flight, from one location to another, represents the major improvement in the equipment.

An idea of the advantage of this mobility feature may be obtained by a comparison with the method used in the past for changing the balloon location. With the old type balloon it was necessary to tow the craft over the ground while attached to a cable on a windlass truck. This system contributed to general traffic congestion on the roads and serious difficulties had to be overcome when overhead wires, bridges, etc., were encountered. The mobility feature also permits balloons of this type to be moored in the rear zone, thus reducing the hazard of attack while on the ground, which was one of the undesirable features of the old type balloons.

Helium is, of course, now used for practically all lighter-than-air operations. The new type observation balloon is inflated with 50,000 feet of this noninflammable gas. Since helium is an inert gas and will not combine with another gas to form an explosive mixture, this feature offers a decided improvement, in that it eliminates the hydrogen fire hazard.

The envelopes for balloons, which up until recently were constructed of rubberized fabric, are now manufactured from fabrics coated with synthetic rubber. The power car is a tubular steel structure covered with cloth and provided with three wheels, on which the car is moved about while on the ground. The car is equipped with two cockpits, permitting carrying of an observer for specialized missions when flying as a motorized balloon.

The fact that the air speed compares with the speed of land vehicles rather than with that of other aircraft makes flight at low speeds and low altitudes possible with a high degree of safety. A change of location under cover of darkness without elaborate navigational aids is another of the outstanding characteristics of this type of balloon. It is entirely possible to throttle the engine and converse with persons on the ground.

Operation of this type of aircraft is relatively simple when compared with that of other types.

Two balloons of the C-6 motorized type are now in operation; one at Fort Sill, Oklahoma, where observation missions for the Artillery School are performed, and the other at Fort Lewis, Washington. Two additional balloona will be placed in service as soon as construction is completed.

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Lieuts. Odom and Eckert (From Page 6).

School at Chanute Field, Rantoul, Ill., while Lieut. Eckert has been on duty as a flying instructor at the Air Corps Primary Flying School at Randolph Field, Texas.

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The following-named Air Corps officers, upon the completion of their present tour of duty in the Philippine Department, are assigned to duty at the stations indicated:

First Lieuts. Jerome E. Blair, 2d, and Stanley J. Donovan to Randolph Field, Texas; Frederick J. Pillet to Maxwell Field, Ala.

Officers recently ordered to duty in the Philippines are 1st Lieut. William M. Gross and 2nd Lieut. Henry B. Fisher, upon the completion of the Armament course, and 2nd Lieut. Hilmer C. Nelson, upon the completion of the Photographic course at the Denver Branch of the Air Corps Technical School, Lowry Field, Denver, Colo.

HIGH ALTITUDE NAVIGATION MISSION

A flight of seven PB-2 Pursuit planes from the 33rd Pursuit Squadron, Langley Field, Va., took off on June 6th on a high altitude navigation mission. The flight was led by Major R.L. Maughan, Commanding Officer of this Squadron, and was joined by six planes attached from the 35th and 36th Pursuit Squadrons.

Except for the development of a faulty supercharger on the airplane piloted by Lieut. W.C. Clark, the mission was without incident. Maxwell, Barksdale and Kelly Fields were visited.

Much was learned of the capabilities of biplace Pursuit at high altitude, and the mission was considered successful by all concerned.

In connection with the above, the News Letter Correspondent of the 35th Pursuit Squadron states:

"Second Lieutenants Don Coupland, George B. Greene and Homer M. Truitt, as part of Major R.L. Maughan's flight, took off from Langley Field to visit their Alma Mater at San Antonio, Texas. During the trip they took the PB's aloft to 20,000 feet, where it became quite cold, especially with only summer flying equipment. While flying at this altitude they used the newly installed gaseous oxygen equipment, which proved to be very satisfactory."

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CHANGES IN PERSONNEL AT KELLY FIELD

Major Harvey W. Prosser and Captain Edward H. Porter, Air Corps, reported at Kelly Field recently from the Philippine Department.

During his tour of duty in the Philippines, Major Prosser served as Director of the Bureau of Aeronautics, Commonwealth of the Philippines, and Aeronautical Adviser on the staff of General Douglas MacArthur, Military Adviser of the Commonwealth of the Philippines; as well as Inspector, Bureau of Air Commerce, U.S. Department of Commerce. He returned to the States commercially, via the Suez Canal, with his family.

Major Prosser was assigned to the Air Corps Advanced Flying School and announced as Secretary and Public Relations Officer, succeeding Major Isaiah Davies, Air Corps, who has been designated as Director of Flying Training, relieving Major Robert T. Cronau, who will continue as Post Operations Officer.

While in the Philippine Department, Captain Porter served as Group Communications Officer of the Fourth Composite Group, Air Corps, and for over a year he was Commanding Officer of the 28th Bombardment Squadron at Nichols Field. He returned to the States with his family aboard the U.S. Transport GRANT. Captain Porter was assigned to the 61st School Squadron at Kelly Field and will assume command of that organization in the near future, upon the departure of Major Clarence E. Crumrine for Fort Leavenworth, Kansas, where he was ordered to pursue the course at the Command and General Staff School.

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PERSONNEL NOTES

Colonels Walter H. Frank, Chief of Staff of the Headquarters GHQ Air Force, Langley Field, Va., and Herbert A. Dargue, Assistant Commandant of the Air Corps Tactical School, Maxwell Field, Ala., are under orders for foreign service.

Colonel Frank is to sail on or about September 1, 1938, for the Hawaiian Department, where he will report to the Commanding General for duty as Wing Commander of the 18th Wing.

Colonel Dargue is to sail on the transport scheduled to leave Charleston, S.C., on or about October 8, 1938, for the Panama Canal Department, where he will report to the Commanding General for duty as Wing Commander of the 19th Wing.

Major Lloyd N. Keesling, Air Corps, has been placed on the retired list, June 30, 1938, for disability incident to the service.

Major Harlan W. Holden (Captain) was promoted to the permanent grade of Major, with rank from June 23, 1938.

Lieut. Colonel Walter F. Krauss, Air Corps, has been relieved from detail as a member of the General Staff Corps and from assignment and duty in the Office of the Chief of Staff, Washington, D.C., and assigned to duty in the Hawaiian Department.

Master Sergeant Frank Skrobacke, Air Corps, of the Headquarters and Headquarters Squadron, 3rd Wing, GHQ Air Force, has been placed on the retired list at Barksdale Field, La., effective June 30, 1938. Enlisting in the Coast Artillery Corps, he served continuously in that branch of the service, from Private to Sergeant, from August 8, 1907, to December 27, 1920. From that date and through the remainder of his military service he served with the Air Corps. He received his appointment as Master Sergeant on January 2, 1936. He graduated from the Air Corps Technical School as an Airplane Engine Mechanic, and served in the Panama Canal Department from April 15, 1915, to December 3, 1919. At the age of 48, Master Sergeant Skrobacke has completed over 30 years of service in the Army.

Captain Arnold H. Rich has been transferred from Maxwell to Lowry Field, Colo.

HICKAM FIELD, THE ARMY'S NEWEST AND LARGEST AIRDROME

By Captain H.B. Nurse, Quartermaster Corps

Through weird purple lights of a tropical dawn there came a mighty armada, roaring its way through tranquil skies over these enchanted islands of romantic Hawaii. The 18th Wing of Uncle Sam's mighty air force is "Coming Home." "Home," with all that the word implies, for Brigadier General Barton K. Yount, beloved and respected by every man of his command, has taken possession, for the U.S. Army, of this magnificent air base, which is destined to be, when completed, not only the most important unit of aerial defense within the Hawaiian Department, but the largest airdrome in this broad land of ours.

The young aviator fortunate enough to be assigned to the 18th Wing will find on "reporting in" that the charms of Hawaiian tradition have been interwoven by the creative mind in the development of this beautiful post.

As a kamaaina to a malihini, to one who is coming for his first tour in these tropical islands, let me quote for his enlightenment Mark Twain's early impression - "No land in all the world has any deep, strange charm for me but this one; no other land could so lovingly and beseechingly haunt me sleeping and waking through half a lifetime, as that one has done. Other things leave me, but it abides; other things change, but it remains the same. For me its balmy airs are always blowing, its summer seas flashing in the sun; the pulsing of its surf-beat is in my ear; I can see its garlanded crags, its leaping cascades, its plumey palms drowsing by the shore; its remote summits floating like islands above the cloudrock; I can feel the spirit of its woodland solitude; I can hear the splash of its brooks; in my nostrils still lives the breath of flowers that perished twenty years ago." And THIS is Hawaii.

Nestling on these sunny shores, out here in the Paradise of the Pacific, Hickam Field has come into its own. It is situated seven miles northwest of the City of Honolulu, and lies between the Navy Yard, Pearl Harbor and Fort Kamehameha. This new Air Field was officially designated as HICKAM FIELD in commemoration of Lieut. Colonel Horace M. Hickam, Air Corps, who was killed in line of duty at Fort Crockett, Texas, on November 5, 1934, in an airplane accident.

In 1928, the necessity for expanding the air defenses of the Hawaiian Islands became apparent to the War Department, at which time a Board of Officers was appointed to select a suitable airdrome site on the Island of Oahu for this purpose. Several tentative sites were inspected. However, in the opinion of the Board, all but one site failed to possess the necessary characteristics of an ideal airdrome. Recommendations were made to the War Department that this particular site, consisting of 2225.46 acres, be secured from private owners, comprised of the Bishop Estate, Damon Estate and Queen Emma Estate.

During 1928, the U.S. Attorney General started condemnation proceedings which were later suspended due to lack of funds. Nothing further was done concerning the condemnation of this land until January, 1935, when proceedings were reinstituted against the property owners. Title was acquired to the property on April 9, 1935, at a cost of $1,091,238.12, the funds having been provided for under Public No. 21, of the 74th Congress, approved March 21, 1935.

On July 26, 1935, Captain H.B. Nurse, Quartermaster Corps, arrived in Hawaii to assume the duties of Constructing Quartermaster. After making a thorough examination of the site, a layout plan was prepared for this vast airdrome, and this was approved on August 16, 1935, by Major General Hugh A. Drum, the Department Commander.

Major Don L. Hutchins, Air Corps, arrived in the Department shortly before Captain Nurse, and assumed the duties of Air Corps Representative and Technical Advisor to the Constructing Quartermaster. Major Hutchins and Captain Nurse had worked together on Air Corps construction for more than six years. At the expiration of Major Hutchins' tour, when he was ordered to the Mainland to attend the Industrial College, Major Harold L. Clark, Air Corps, an old-timer in the Building and Grounds Division in the Office of the Chief of the Air Corps, and with whom Captain Nurse had previously served, was ordered to Hawaii as replacement in this important position.

Lieut. Jesse H. Veal, Quartermaster Corps, reported for duty as assistant to the Constructing Quartermaster on November 23, 1935, and was assigned as Executive Officer. The greater portion of his service since graduation from West Point has been with Captain Nurse.

On September 1, 1935, Master Sergeant Harry A. Chapman, Air Corps, was assigned to the project as Assistant to the Constructing Quartermaster and placed in charge of work to be performed by the Purchase and Hire Section; work for which he was well qualified and which he handled very efficiently until impaired health compelled his return to the Mainland, at which time Lieut. Archibald W. Lyon, Quartermaster Corps, a young officer who received his initial grooming during the construction of Hamilton Field, under Captain Nurse's supervision, took charge of this work.

The remainder of the organization was

made up of Civil Service employees, many of whom were transferred from mainland posts, and had served previously with Captain Nurse at various stations from Washington, D.C., to as far distant as the Philippine Islands.

When completed, Hickam Field will have barracks that will provide accommodations for six thousand enlisted men and more than eight hundred dwellings to house the commissioned and noncommissioned personnel. There will be eight double hangars with over twelve acres of floor space. The Hawaiian Air Depot, which is also an important part of Hickam Field, will be provided with 380,000 square feet of floor space for the storage of supplies and will be equipped with a most modern shop with more than eight acres of the latest type of machinery and equipment.

The Japanese have a proverb which embodies the theory that beautiful surroundings play a great part in the building of good men. Major General Hugh A. Drum, the Department Commander at the time this work was initiated, was a believer in the building up of "good men," thereby moulding strong organizations, which would in turn result in a decidedly efficient fighting machine.

First, he believed thoroughly in a "Happy Garrison," which is the indication of contentment within the organization; second, he strongly agreed with Ruskin, who once said: "One will so often think that beauty is expensive, which is wrong,- it is ugliness that costs." With this in mind, General Drum in the initial plans tried to make Hickam Field not only a "model of efficiency," but a beautiful place in which to live.

Colonel Delos C. Emmons was Wing Commander at the inception of Hickam Field, and was subsequently relieved by General Yount. Both officers took a keen interest in converting what only yesterday were tangles of Algaroba and lantana jungle into a model Army post which, if General Yount's prophecy comes true, will become one of the show places of Hawaii.

The Quartermaster Corps, charged with the construction of this project, is accomplishing results through the medium of very careful and thorough planning. The day is never so crowded with routine duties but that Colonel C.L. Corbin, the Department Quartermaster, finds time to study the minute details that go into the construction of a post of this magnitude.

Every home is not only being so placed as to avail itself of the prevailing trade winds, but also the mountain scenery or marine view. The homes will be in keeping with the Hawaiian atmosphere and traditions, rather than being set "four square," and each a replica of the other, as were the buildings of our earlier Army Posts, when it was considered essential to follow the lines of a citadel, a tradition which was handed down from the time of Caesar.

At Hickam Field, streets curve and wind in an easy, carefree manner, with a leisurely Hawaiian indifference to the Euclidean maxim concerning two points and one straight line; yet, it contains organic unity, as well as direct arteries of circulation leading to various focal points.

In the technical area, however, lethargy is abated and is replaced with an alert efficiency.

Landscaping, in keeping with Hawaiian sub-tropical growth, is keeping pace with the construction. Over 300,000 trees and shrubs have already been propagated at little cost. Had this work been delayed until completion of construction and the necessary trees of proper growth purchased in the open market, it would have resulted in the expenditure of several hundred thousands of dollars. As it is, we have 175 varieties of trees and shrubs with 41 varieties of palms alone. Many of these have been set out along the streets and boulevards and by the time Hickam Field reaches completion, they will have matured into well developed young trees.

Endeavoring to get away from a stereotyped form of building, it is also hoped to develop individuality in the grounds and landscaping as well, so that when completed Hickam Field will be not only a credit to our Government but a source of pride to the good people of fair Hawaii.

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55TH PURSUIT SQUADRON ON THE GO.

The 55th Pursuit Squadron, stationed at Barksdale Field, La., recently returned home from their sojourn at the Floyd Bennett Airport, Brooklyn, N.Y. The News Letter Correspondent states that many lessons were learned of the big city, also that when the Pursuiters arrived at Barksdale Field they stopped there only long enough to secure a clean shirt and a pair of socks, and then seven pilots and fifty percent of the enlisted personnel of the Squadron proceeded to Galveston, Texas, where they were busily engaged in conducting aerial gunnery. "Completion of this phase of pilot training," he says, "will finish our training directive for the Fiscal Year to the satisfaction of all concerned."

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Standardization of the Type A-8, vaporproof, cabin lamp assembly has been initiated at the Air Corps Materiel Division. This lamp is similar to the Type A-7, except that a 25-watt, 110-volt, double contact bayonet candelabra base lamp is used in lieu of the 21 c.p., 12-16 volt, single contact, bayonet candelabra base lamp.

PROMOTION OF SECOND LIEUTENANTS

The following-named second lieutenants of the Air Corps were promoted to the grade of first lieutenant, with rank from June 12, 1938:

Albert J. Shower	Willis F. Chapman
Jack W. Hickman	Thomas Wildes
Leighton I. Davis	Aaron W. Tyer
George R. Smith	German P. Culver
James VanG. Wilson	Wilhelm C. Freudenthal
John K. Brown, Jr.	Charles J. Daly
Robert M. Stillman	Samuel C. Mitchell
Richard E. Ellsworth	Lamont Saxton
Raymond W. Sumi	Thomas C. Musgrave, Jr.
Joseph G. Russell	Thomas J. Gent, Jr.
Kenneth P. Berquist	Pelham D. Glassford, Jr.
Arthur A. Fickel	Maurice M. Simons
Downs E. Ingram	Jack Roberts
Carl M. Parks	Glenn C. Thompson
James H. Walsh	Samuel B. Knowles, Jr.

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ASSIGNMENT OF GRADUATES OF ENGINEERING SCHOOL

Upon the completion of their present course of instruction at the Air Corps Engineering School at Wright Field, Dayton, Ohio, the following-named Air Corps officers are assigned to stations, as follows:

To the Materiel Division, Wright Field: Captains Oscar F. Carlson, Frank G. Irvin, 1st Lieutenants Mark E. Bradley, Jr., Merrill D. Burnside, Charles E. Munroe, Jr., Rudolph Fink.

To the Rockwell Air Depot, Coronado, Calif: 1st Lieut. Charles G. Williamson.

To Leland Stanford University, Calif: 1st Lieut. Samuel R. Brentnall.

To University of Michigan, Ann Arbor, Mich: 1st Lieut. Daniel F. Callahan, Jr.

To California Institute of Technology, Pasadena, Calif.: 1st Lieut. Clark N. Piper.

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NEW OFFICERS FOR THE AIR CORPS

Under the provisions of the Acts of Congress of August 30, 1935, and April 13, 1938, a total of 61 Reserve officers of various branches of the Army serving on active duty received permanent commissions in the Regular Army in the grade of second lieutenant. Nineteen each were commissioned in the Infantry and the Air Corps, 9 in the Field Artillery, 5 in the Coast Artillery Corps, 3 in the Cavalry and the Corps of Engineers, 2 in the Signal Corps and one in the Chemical Warfare Service.

The 19 officers permanently commissioned in the Air Corps, with rank from July 1, 1938, and the stations at which they are at present serving are given below, viz:

J.W. Phelps, Jr. and S.R. Patterson, Selfridge Field, Mich. Also L.G. Fiegel.

J.R. Allison, T.K. Myers and H.G. Barrett, Langley Field, Va.

M.J. Corfield, W.A. Davis and W.E. Nau, March Field, Calif.

L.H. Dalton, J.R. Kilgore and E.S. Chickering, Randolph Field, Texas.

H.V. Eartin, Jr. and R.C. Orth, Scott Field.

G.L. Hudson, Jr., Moffett Field, Calif.

(Continued on Page 13)

CHANGES IN JULY CLASS AT RANDOLPH FIELD

Thus far a total of 343 candidates have been selected for the July, 1938, entering class at the Primary Flying School at Randolph Field, Texas.

A number of candidates, listed in the previous issue of the Air Corps News letter as having been selected for this class, have for various reasons declined appointment. These candidates, 20 in number, are listed below, as follows:

Campbell, Charles Clay	University, Ala.
Grant, Robert Smith	Washington, D.C.
Roberts, Harold Halcombe	Bartow, Fla.
Hay, Samuel Wahl	Chicago, Ill.
Baker, Barton Ormsbee	Moline, Ill.
Marshall, Paul Robert	Peoria, Ill.
Werner, Franklin Andrew	Peotone, Ill.
Crow, Roger McKee	Topeka, Kans.
Tarter, Heber Dana	Mintonville, Ky.
Walden, David Carroll	Brunswick, Me.
McGrath, John Francis, Jr.	Jamaica Plain, Mass
Mason, Robert Earl	Quincy, Mass.
Bates, Albert W.	Worcester, Mass.
Plansoen, John Louis	Belleville, N.J.
Chapin, Lambert	Potsdam, N.Y.
Isensee, George Lorne	Fargo, N.D.
McCoy, Charles Wirth	Longview, Texas
Lamberth, Ivey Earl, Jr.	Waco, Texas
Kershner, Maurice Irving	Burlington, Vt.
Venable, Eugene Roane	Roanoke, Va.

The 22 candidates listed below have been added to the number of Flying Cadet appointees for the July, 1938, class at Randolph Field, viz:

Grosetta, Anthony V.	Tucson, Ariz.
Hubbard, Harry Vaughn	Hayward, Calif.
Wood, Samuel Gordon	Washington, D.C.
Fleege, Francis Joseph	Galena, Ill.
Hampton, Vern James	Galesburg, Ill.
Van de Lester, John Rineir	Hammond, Ind.
Harker, Ward W.	Detroit, Mich.
Wood, William Johnston	Albuquerque, N.M.
Vosper, Stanley Richard	Akron, Ohio
Wilson, Frederick Gerald	Delaware, Ohio
Kendall, William Talbott	Salem, Ohio
Finkles, Raymond Archer, Jr.	Warner, Okla.
Newton, Darr Ellsworth	Malvern, Pa.
Stubbs, A.B. *	Fort Moultrie, S.C.
Gilbert, William Frank, Jr.	Lyman, S.C.
McDonald, William Emory	Corsicana, Texas
McCafferty, Guy Franklin**	Fort Bliss, Texas
Brosseau, William D.	San Antonio, Texas
Gwinn, John W.	Lockbridge, W.Va.
Hurley, Edward Phillip	Lafayette, Ind.

*2nd Lieutenant, Infantry Reserve

**2nd Lieutenant, Cavalry Reserve

Enlisted Men

Smith, William Bernard, Private, Coast Art'y 51st Coast Artillery, Fort Monroe, Va.

Fawcett, Ralph M., Private, Air Corps 10th Air Base Squadron, Chanute Field, Ill.

In the issue of the Air Corps News Letter for June 15, 1938, it was stated that a total of 341 candidates had up to that time been selected for the July, 1938, Class at Randolph Field.

Deducting the 20 candidates who declined appointment, and adding the 22 candidates above listed, makes the size of the class 343.

ALBROOK FIELD AIRPLANES SALVAGED AT JAQUE, PANAMA

By Lieut. Franklin K. Paul, Air Reserve

A motor launch, barge, airplanes and natives armed with machetes were utilized to salvage the usable parts of a B-10B and a B-6A which were recently damaged while landing at Jaque, Republic de Panama. Lying some 160 miles southeast of Albrook Field and just a few miles from the Colombian border, the little village of Jaque is accessible only by boat or airplane. Its few dozen inhabitants live in bamboo huts; most of them have never seen an automobile, but an airplane is a common sight, and several weeks ago they were privileged to witness a little civilized sport when a B-10B kneeled down after landing, and a B-6A somersaulted in the mud.

As neither airplane could be locally repaired and flown away, it was necessary to dismantle both and attempt to tow the undamaged parts by boat and barge to Albrook Field. Not such a difficult procedure - if one is supplied with a concrete loading dock and a few traveling cranes, but rather arduous under the conditions met with in Panama's interior, where the only cranes are those with white wings and crooked necks.

Under direct supervision of Master Sergeant (Doctor) Lucy, a pier of logs was built on the bank of the river that terminates the north runway of the Jaque landing field, and which is some half mile in from the sea. Native labor was used chiefly in the actual construction, the principal tools being axes and machetes. This forty by sixty foot pier was set up a la Engineers' Field Manual with jungle timber, and when finished was strong enough to support a freight car. The logs for the flooring were hewed flat, and in accomplishing this feat the native contingent showed a confidence in the handling of axes that was blood-chilling to observe.

"How wide to cut?" asked one, and when Sergeant Lucy answered "as wide as your foot," the dusky Indian placed his bare pedal extremity on a log and proceeded to hack away the wood to its exact width. If his toes had had whiskers they would have been shaved as closely as with a freshly stropped razor.

The P-10 crash boat, accompanied by the Navy mine-tender SCHUMM, towing the Army's sixty-ton barge, arrived offshore at Jaque. However, the SCHUMM proved to have too much draft to negotiate the shallow river mouth channel, and it was not feasible for the light P-10 to tow the barge close-hauled through the heavy surf. Accordingly, the P-10 came ashore alone, took aboard one end of a 3500-foot line, and attempted to haul this end back to the barge. The plan was for the P-10 to pull the barge at the end of the long line in such a manner that the line would span the several hundred yards of rough water, and the P-10 would be pulling in the quiet river.

On its outward trip to the barge, the P-10 met disaster in the form of a huge roller, which broke completely over the small cruiser, damaging its stern and washing overboard Private Bryan, of the 15th Air Base Squadron. Bryan managed to struggle to the shore through several hundred feet of shark-infested ocean, but the P-10 was out of commission for towing purposes. It later limped back to Balboa under its own power.

Salvage operations were delayed until Captain Manning E. Tillery, Post Engineering Officer, and officer in charge of the salvaging, secured the services of T.J. Libonati, a machinist in the Canal Zone Mechanical Division. Mr. Libonati asserted that his Diesel-powered shallow draft launch could pull the barge through the surf. Accordingly, on the morning of June 4th, the CECELIA, towing the barge twice her size, came around Pinas Point and anchored off-shore at Jaque, awaiting the afternoon high tide. At morning high tide the inlet is usually fairly calm, but by late afternoon huge whitecaps lash frenziedly against the rocks and over the sandbar which guard the narrow channel. Even the fish keep a safe distance from the tumbling tons of water. And the CECELIA was just two hours late to catch the morning tide.

Captain Tillery and other salvage workers ashore, remembering what had happened to the P-10, gathered on the beach to watch, and at 5:30 p.m., the little launch with the barge snubbed close behind, pointed her nose in the breakers. At the first one she hit the sixty-ton barge came alive. The tiny CECELIA almost disappeared into the trough of the wave, and the barge, poised on its crest, leaned backward and lunged like a deeply struck tarpon. As the line snapped taut, its huge bulk plowed forward and the CECELIA was forced to full throttle to avoid being rammed. For a hectic five minutes a dramatic duel was fought between scow and launch, the barge twisting first side-ways, then plunging head-on, and snapping the stern of the CECELIA about until its skipper was hard put to avoid being rammed and swamped. The little craft wallowed wildly in the rollers, shipping water over both rails, but finally slid into the smooth flowing river with the heavy load, and though her floor bits were pulled from the strain and the rudder cable jammed, managed to tie up at the home-made pier.

The loading of the salvaged airplane parts was accomplished that night in or-

er that the launch might take advantage of the smoother morning tide on the outward trip. Four heavy motors and the B-10 wings were carried by sheer man power for approximately a hundred yards to the barge; cowlings, instruments and other usable parts were loaded, and at the end of four hours the load was lashed down and ready. Early the next morning Mr. Libonati swung the CECELIA through the now calm passage and reached Balboa two days later with the cargo intact.

For salvage operations in such a locality a great deal of prior planning had to be made. Men to supervise the building of the pier, dismantling the airplanes, engaging of native labor, and securing materials, had to be sent to Jaque two weeks before the arrival of the boat, and these men had to be kept supplied with fresh water and food carried by plane from Albrook Field. The rainy season, with its daily downpours, made the regular delivery of supplies an uncertain procedure, and the prevalence of mosquitoes necessitated constant dosing of quinine to offset malaria. In procuring native labor, and in transmitting orders to them, the salvaging officers were greatly assisted by August Adrian, an English speaking native of Germany, who has lived in Jaque for the past seven years, and who proved very efficient in directing his helpers in any one of three languages.

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CHIEF OF ATTACK SEC. LEAVES KELLY FIELD

Captain Glen C. Jamison and his family will leave Kelly Field on July 1st on a two-months' leave of absence for travel and recreation. At the expiration of his leave, Captain Jamison will proceed to Maxwell Field, Ala., for station and for duty as a student at the Air Corps Tactical School.

Active in the training of students of the Air Corps Advanced Flying School, Kelly Field, for the past five years, Captain Jamison has left a tradition of excellent service. As its chief, he has been the bulwark of the Attack Section for the past three years. During his present tour of duty at Kelly Field, he has served as an instructor in practically every section of the Flying Department.

"Jamie," as the Captain is known to all his brother officers and to his host of civilian friends, graduated from the U.S. Military Academy in June, 1923. In September, 1924, he graduated from Kelly Field as an Airplane Pilot, having received his training in Pursuit. Upon graduation, he was assigned to the Primary Flying School at Brooks Field, where he served as an instructor for four years. In 1928 he was transferred to Panama, where he served until June, 1930. He was then assigned to Langley Field, Va., where he served until April, 1932, when he was assigned to Bolling Field. In 1933 he was assigned to Kelly Field, and now has completed five more years of service as an instructor. He has been Chief of the Attack Section since October, 1935.

Captain Jamison was first assigned to the 43rd School Squadron, with which he served for one year. In October, 1933, he was placed on detached service at Rockwell Field, Coronado, Calif., for the purpose of conducting tests on navigation instruments to be used in navigation training. Upon the completion of these tests, he was placed on temporary duty at Langley Field, Va., for a period of three months, to help organize and conduct a school in Advanced Navigation Training. After organizing and conducting a course there, he returned to his home station and was assigned to the Bombardment Section as an instructor.

"Jamie" then served as an instructor in the Pursuit and Attack Sections until he was appointed Chief of the Attack Section in October, 1936, relieving Captain Wm. R. Sweeley. Along with his strenuous duties "on the line," he has also in many instances acted as Post Operations Officer and conducted a course in "Attack Aviation" in connection with the Ground School.

He was promoted to the rank of temporary Captain on March 16, 1935, and then received his permanent promotion on August 1st of the same year.

Due to his wealth of knowledge of the training requirements at the Air Corps Training Center, Captain Jamison was called to Washington, D.C., on the first of May of this year to attend a conference in the Office of the Chief of the Air Corps regarding the assignment of various types of airplanes to the Training Center.

It is with reluctance that his friends, both in the Army and in civil life, see him and his family leave San Antonio, and all join in wishing him the best of luck and success.

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New Officers for the Air Corps

(Continued from Page 11)

H.M. Means, Fort Knox, Ky.
T.D. Brown, Fort Lewis, Wash.
H.P. Leber, Jr., Hickam Field, T.H.
McC. F. Stunkard, Jr., Mitchel Field, New York.

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Special Orders of the War Department, recently issued, relieves Brigadier General Henry C. Pratt, U.S. Army, from duty with the Air Corps and from his present assignment as Commandant of the Air Corps Tactical School, Maxwell Field. He is assigned to the command of the 23rd Brigade in the Philippine Department.

OBITUARIES

Flying Cadets Gerald David Shannon, of Parsons, Kansas, and Robert Josiah Brown, of Brady, Nebraska, both students in the Observation Section of the Air Corps Advanced Flying School, Kelly Field, Texas, were killed instantly in an aircraft accident which occurred about 10:30 a.m. Thursday, May 26th, some two miles west of Leon Springs Station, Texas. Cadet Shannon was pilot and Cadet Brown, observer, in the O-25 airplane in which they were engaged in a routine student reconnaissance mission looking over the area in which their section was scheduled to cooperate with ground arms that night. According to witnesses of the crash, the airplane in which they were flying appeared to be having engine trouble when it went into a spin and crashed. Both occupants of the plane were dead when reached by witnesses, and the bodies were removed to the Fort Sam Houston Station Hospital in a Camp Stanley ambulance. The airplane was completely demolished.

Both Shannon and Brown reported at Kelly Field from the Primary Flying School on February 23, 1938, and would have graduated from the Advanced Flying School on June 16, 1938.

Cadet Shannon was born on October 9, 1913, at Parsons, Kansas, where he resided when he received his appointment as a Flying Cadet. He graduated from Parsons Junior College in 1933, and attended the University of Minnesota from 1935 to 1937. His father, Mr. G.A. Shannon, is also a resident of Parsons. Cadet Shannon held a commission as second lieutenant in the Medical Administrative Reserve.

Cadet Brown was born on August 29, 1913, at North Platte, Nebraska, and was a resident of Brady, Nebraska, when he received his appointment as a Flying Cadet. He graduated from Nebraska State College in 1936 with a degree of Bachelor of Science in Mechanical Engineering, and held a commission as a second lieutenant in the Infantry Reserve. Both of Cadet Brown's parents are deceased, and his brother, Mr. Harold L. Brown, of Brady, Nebraska, is his only survivor.

A Board of Officers met to investigate and determine, if possible, the exact cause of the crash which deprived the Air Corps and the Army of two very promising young pilots.

Double funeral services were held for these cadets at the Hanavan Funeral Parlors, San Antonio, at 1:30 p.m., on May 27th. Lieut.Col. Edmond J. Griffin, chaplain of Kelly Field, officiated at the services, which were attended by the Commandant, members of his staff and school faculty, as well as the Flying Cadet Detachment and other personnel of the post. The remains of Cadet Brown, under escort of Flying Cadet William F. Stewart, were sent to North Platte, Neb.; while the remains of Cadet Shannon, escorted by Flying Cadet Earle L. Hermell, were sent to Parsons, Kansas, on the morning of May 28th, for interment.

Funeral services were held at the Hanavan Funeral Parlors, San Antonio, Texas, at 1:30 p.m., May 21st, for the late Flying Cadet Kinch Exum Brister, Jr., Air Corps, who lost his life in an aircraft accident near Macdona, Texas, on May 20th. Services were conducted by Lieut. Colonel Edmond J. Griffin, chaplain of Kelly Field. Brigadier General James E. Chaney, Air Corps, Commanding General of the Air Corps Training Center; Colonel Frank D. Lackland, Air Corps, Commandant of the Air Corps Advanced Flying School, and members of his staff, as well as the senior instructors of the four sections, and members of the Flying Cadet Detachment and personnel of the post attended.

Following the services, the remains of Cadet Brister, accompanied by Flying Cadet William R. Yancey, Air Corps, a classmate in the Attack Section, were sent to Cadet Brister's parents at Yazoo City, Miss., for burial.

The crash of a BT-9 airplane on the morning of June 7th, one-half mile southeast of Zuehlfield, Texas, resulted in the death of Flying Cadet William H. Coneby, pilot of the plane, and 2nd Lieut. Nathan H. Coddington, Air Reserve, Flying Instructor. The cause of the crash has not been determined.

Lieut. Coddington was born at Fresno, Calif., March 16, 1910. He attended the Manual of Arts High School for three years, the University of California, at Los Angeles, for three years; and the University of California at Berkeley for two years. Appointed a Flying Cadet in the Air Corps, he graduated from the Primary Flying School, Randolph Field, Texas, February 21, 1934, and from the Advanced Flying School, Kelly Field, Texas, June 23, 1934, when he was rated as an "Airplane Pilot" and assigned to active duty under his cadet status with the 20th Bombardment Squadron at Langley Field, Va. On October 30, 1934, he was transferred to Brooks Field, Texas, and assigned to the 12th Observation Squadron. He was appointed a second lieutenant in the Air Reserve on June 30, 1935. In August, 1935, Lieut. Coddington was transferred to the Hawaiian Department for station at Luke Field. Following the completion of his tour of duty in Hawaii, he was assigned to duty as a Flying Instructor at the Primary Flying School at Randolph Field Texas.

Flying Cadet Coneby was born at Indianapolis Indiana, March 21, 1913. After graduating from high school in Washington, D.C., he attended the University of Maryland for two years and the George Washington Law School for two years. For over a year, from July, 1934, to October, 1935, he was employed in the Office of the Home Owners Loan Corporation, Washington, D.C., as general assistant to the Senior Administrative Assistant. He was appointed a Flying Cadet in the Air Corps and entered the October 15, 1937, class at the Primary Flying School, Randolph Field, Texas. He was nearing the completion of his eight months' course at this school at the time of the fatal accident.

Second Lieut. Joseph C. Marcy, Air Reserve, stationed at March Field, Calif., lost his life on June 9th, when the A-17A airplane he was piloting crashed at 9:40 p.m., some six miles southeast of Beaumont, Calif. His pass-

enger, Private William P. White, of Base Headquarters and 4th Air Base Squadron, March Field, was slightly injured.

Lieut. Marcy was born at Montesano, Washington, November 6, 1914. He graduated from Yakima High School in January, 1933; attended the Yakima Junior College for two years, and the University of Washington for one year. Appointed a Flying Cadet in the Air Corps, he graduated February 16, 1938, from the Advanced Flying School, Kelly Field, Texas, specializing in Attack Aviation, and was on that date rated as "Airplane Pilot" and commissioned a second lieutenant in the Air Reserve. He was then assigned to extended active duty with the 34th Attack Squadron at March Field, Calif.

The crash of a BT-9 airplane on the morning of June 7th, seven miles southeast of Randolph Field, Texas, resulted in the instant death of 2nd Lieut. Arthur M. Keppler, Air Reserve, Flying Instructor, and severe injuries to the student pilot, 2nd Lieut. Frederick M. Thompson, Air Corps (Corps of Engineers), which subsequently proved fatal. The cause of the accident was undetermined.

Lieut. Keppler was born at Houston, Texas, on September 4, 1909. Following his graduation in 1932 from the Texas A. & M. College with a B.S. degree in electrical engineering and being engaged in the automobile and radio business for over a year, he received an appointment as a Flying Cadet and entered the October, 1933, Class at the Primary Flying School at Randolph Field, Texas. Following his graduation from Randolph Field, June 30, 1934, and from the Advanced Flying School, Kelly Field, Texas, where he specialized in Bombardment Aviation, on October 13, 1934, he was rated an "Airplane Pilot" as of that date and assigned to active duty under his Cadet status with the 31st Bombardment Squadron at March Field, Calif. In December, 1934, he was transferred with this organization to Hamilton Field, Calif. He was commissioned a second lieutenant in the Air Reserve on October 14, 1935, and in October, 1937, he was transferred to Randolph Field for duty as Flying Instructor.

Lieut. Thompson was born in Kansas, November 18, 1913. He graduated from the U.S. Military Academy, West Point, N.Y., in June, 1937, and commissioned a second Lieutenant in the Corps of Engineers. He was assigned to the Air Corps for flying training with the October, 1937, Class at the Primary Flying School, Randolph Field, Texas, and was nearing the completion of his eight months' course at this school at the time of his fatal accident.

On June 10, 1938, a Bombardment plane, flying from the Air Corps Technical School, Chanute Field, Rantoul, Ill., to the branch of this School at Denver, Colo., crashed during a storm at Delevan, Ill., and resulted in the death of all the occupants of the plane - 3 officers and 5 enlisted men of the Air Corps. The plane was piloted by 1st Lieut. Norman H. Ives, with 2nd Lieut. Thomas F. Langben as co-pilot, and the following passengers: Captain Richard B. Reeve, Staff Sergeant Edward F. Murah, Corporal William H. Housley, Privates Philip J. Truitt, Max W. Myser and George L. Huntsman. According to press reports, two of the witnesses of this accident claim that the plane was on fire before the crash. One of them, however, stated that the plane exploded after the crash, while the other expressed the opinion that the explosion occurred before the crash. A Board of Air Corps officers was immediately appointed to investigate and ascertain, if possible, the cause of the accident.

Captain Reeve was born at Waunakee, Wis., March 27, 1902. He graduated from high school in Madison, Wis., in 1920, and attended the University of Wisconsin in 1921-1923. Prior to his appointment in the year 1925, as a Flying Cadet in the Army Air Corps he was employed in the advertising department of the Chicago "Herald and Examiner." Following his graduation from the Advanced Flying School, Kelly Field, Texas, March 14, 1926, he was rated "Airplane Pilot" and "Airplane Observer" and commissioned a second lieutenant in the Air Reserve. Successful in his examination for a commission in the Regular Army, he was appointed a second lieutenant in the Air Corps on September 4, 1926, and assigned to duty as a flying instructor at the Air Corps Primary Flying School at Brooks Field, Texas.

From June 30, 1931, to April 20, 1932, Capt. Reeve took the course of instruction in Aircraft Armament at the Air Corps Technical School at Chanute Field, Rantoul, Ill. In June, 1932, he arrived in the Philippines and was assigned to duty with the 28th Bombardment Squadron at Nichols Field.

After serving 3½ years in the Philippines, two years of that time as Armament Officer of the 28th Bombardment Squadron, and the remainder on such duties as Group Armament Officer, Post Ordnance Officer, and then as Supply Officer of the 66th Service Squadron, he returned to Chanute Field in November 16, 1935, and for some months served as Intelligence and Operations Officer of the 48th Pursuit Squadron. Later he was appointed as Assistant Director of the Department of Armament of the Air Corps Technical School, and moved to Denver upon the establishment of a branch of the Technical School in that city and the transfer of the Armament and Photographic departments of the School to this branch.

Lieut. Ives was born at Ogden, Utah, July 9, 1906. He graduated in 1925 from the Los Angeles Polytechnic School, where he studied journalism and mechanical engineering. He attended the University of California for one year.

Appointed a Flying Cadet in the Army Air Corps, he completed the course at the Primary Flying School at Brooks Field, Texas, on August 5, 1927, and the advanced course at the Advanced Flying School, Kelly Field, Texas, on February 4, 1928, specializing in Observation Aviation. He was rated as "Airplane Pilot" and "Airplane Observer," effective February 28, 1928, and was commissioned a second lieutenant in the Air Reserve. Passing the examination for a commission in the Regular Army, Lieut. Ives was appointed a second lieutenant in the

Air Corps, with rank from February 2, 1929, and assigned to duty at Rockwell Field, Calif. In the latter part of 1933, he was assigned to duty in the Philippine Department, where he served as Armament Officer of the 3rd Pursuit Squadron at Clark Field, P.I.

Upon the completion of his tour of foreign service, Lieut. Ives was transferred to Chanute Field, Rantoul, Ill., where he reported on May 14, 1936. Here he completed the Armament course at the Air Corps Technical School with high honors. He remained on duty at the Technical School, and in February, 1938, was transferred to Denver, Colo., when the Armament and Photographic Departments of this School were moved to Lowry Field, Denver, Colo.

Lieut. Ives made a very close study of the subject of aircraft armament, and contributed several highly interesting and valuable articles on that subject for publication in the Air Corps News Letter.

Born in Toronto, Canada, September 6, 1909, 2nd Lieut. Thomas F. Langben became an American citizen, attended grammar school and high school at Galveston, Texas, and in 1929 graduated from the Virginia Military Institute with a B.S. degree in civil engineering. Prior to his appointment as a Flying Cadet in the Air Corps, he was engaged in the surveying profession. After completing a year of flying training at the Air Corps Training Center and graduating from the Advanced Flying School, where he specialized in Bombardment Aviation, he was commissioned on February 24, 1933, as a second lieutenant in the Air Reserve and rated an "Airplane Pilot." Assigned to extended active duty, he served with the 20th Bombardment Squadron at Langley Field, Va., to October 10, 1934, and with the 8th Attack Squadron at Fort Crockett, Galveston, Texas, to February 18, 1935. Successful in his examination for a commission in the Regular Army, he was appointed a second lieutenant in the Air Corps on July 15, 1935, and was assigned to duty at Mitchel Field, N.Y., where he subsequently qualified as a Navigator in the GHQ Air Force.

In November, 1937, Lieut. Langben was assigned to duty as a student to pursue the course of instruction in Aircraft Armament at the Air Corps Technical School at Chanute Field, Ill. With the transfer of the Armament Department of this School to Denver, Colo., his station was changed to that city.

Staff Sergeant Edward F. Murah, Air Corps, a native of Princeton, Wis., was born on September 24, 1905. He entered the Army in December, 1922, and after serving several enlistments in the 12th Field Artillery, he enlisted in the Air Corps on May 28, 1931, and served three years with the 98th School Squadron and a similar period with the 10th Air Base Squadron. He received his appointment as Staff Sergeant on February 1, 1937. On February 12, 1938, he was assigned to the Photographic Detachment of the Denver, Colo., branch of the Air Corps Technical School.

Corporal William H. Housley was born on April 21, 1908, at Chateau, Oklahoma. He enlisted in the Air Corps on August 24, 1929, and since that time he served with the 11th School Group Headquarters at Brooks Field, Texas, with the 58th Service Squadron and the 37th Attack Squadron at Langley Field, Va., and with the Photographic Detachment at the Denver Branch of the Air Corps Technical School. On March 27, 1931, he graduated as engine mechanic from the Air Corps Technical School at Chanute Field, Ill.

Private William J. Truitt, a native of Galax, Va., where he was born on May 28, 1914, enlisted in the Air Corps on February 17, 1936. He was assigned to the 8th Pursuit Group at Langley Field, Va., and was subsequently transferred to the Denver Branch of the Air Corps Technical School for duty with the Photographic Detachment.

Private Max W. Myser was born at Villa Grove, Ill., July 11, 1917. He enlisted in the Air Corps at Chanute Field, Ill., on November 2, 1936, and at the time of his death was a member of the Photographic Detachment of the Denver Branch of the Air Corps Technical School.

Private George L. Huntsman was born on October 26, 1915, at Kankakee, Ill. He enlisted in the Air Corps on January 4, 1934, and was assigned to the Headquarters Squadron of the Air Corps Technical School at Chanute Field, Ill. On July 23, 1937, after completing a course of instruction at the Technical School, he qualified as an airplane mechanic. He was subsequently assigned to duty with the Photographic Detachment of the Denver Branch of the Air Corps Technical School.

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Enroute to his home station, Chanute Field, Ill., from an authorized cross-country flight to Asheville, N.C., 1st Lieut. Samuel V. Stephenson, Air Corps, was killed instantly when the BT-9 he was piloting crashed near Arden, N.C., on June 19th. According to the report on this accident, the pilot was apparently climbing too fast in the fog and rain, and the plane fell into a spin.

Lieut. Stephenson was born in Ohio, December 13, 1902. He graduated from the U.S. Military Academy, West Point, N.Y., June 13, 1929, and was commissioned a second lieutenant in the Coast Artillery Corps. Assigned to the Air Corps for flying training, he graduated from the Air Corps Training Center on February 28, 1931, specializing in Observation Aviation, and was rated as Airplane Pilot and Airplane Observer. He was then assigned to duty in the Panama Canal Department, where he served for one year at France Field and the remaining period of his foreign service at Albrook Field.

Upon his return from Panama, Lieut. Stephenson was assigned to duty as a student to pursue the Airplane Maintenance Engineering - Armament Course at the Air Corps Technical School at Chanute Field. Following his graduation, he was assigned to duty at that station.

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The death at the Letterman General Hospital

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on June 26, 1938, of Major Courtland M. Brown, Air Corps, removed from the ranks of this branch of the service one of a small number of officers holding all four flying ratings, viz: Airplane Pilot, Airplane Observer, Balloon Observer and Airship Pilot.

Major Brown entered the service during the World War, enlisting in the Signal Corps on May 22, 1917. A native of Natick, Mass., where he was born on December 6, 1894, he attended grammar and high school in that city, and the Wentworth Institute at Boston, Mass.

Assigned to the Army Balloon School at Fort Omaha, Neb., for lighter-than-air training, Major Brown, after completing the course, was sent to the Adjutant Officers' School at Ohio State University, Columbus, Ohio, from which he graduated in June, 1918. He was then assigned to duty at Camp John Wise, San Antonio, Texas. He was commissioned a second lieutenant in the Air Service on September 1, 1918.

In May, 1919, he was transferred to Brooks Field, Texas. He was honorably discharged from the service on July 29, 1919.

Appointed a second lieutenant in the Air Service, Regular Army, July 1, 1920, Major Brown was assigned to duty, November 5, 1920, at Lee Hall, Va. Shortly thereafter he was transferred to the Balloon School at Ross Field, Arcadia, Calif., where he was stationed until April 6, 1922. He was then transferred to Scott Field, Ill., where he performed various duties and completed the eight months' course of instruction at the Air Service Balloon and Airship School.

From August 25, 1923, to October 2, 1923, he pursued the Special Observation Course at the Advanced Flying School at Kelly Field, Texas, following which he was assigned to duty in the Hawaiian Department, where he was stationed until June 22, 1927. For a period of eight months he was stationed at the Primary Flying School, Brooks Field, Texas, for flying training. He then returned to Scott Field, and served with the 24th Airship Company as Engineering Officer and then as Supply Officer until September 6, 1930.

After completing the course in Aerial Photography at the Air Corps Technical School at Chanute Field, Ill., Major Brown was again assigned to duty in the Hawaiian Department, and was stationed at Luke Field from January 6, 1932, to May 29, 1935. Upon his return to the United States he was assigned to the Air Corps Training Center to undergo the heavier-than-air flying course. He successfully completed the primary flying course at Randolph Field and the Advanced Flying course at Kelly Field, and received the rating of Airplane Pilot on October 7, 1936.

Major Brown was next assigned to duty at Brooks Field, and was subsequently transferred to his last station, Moffett Field, Calif.

The Air Corps expresses its deep sympathy to the bereaved families and friends of the deceased Air Corps officers and enlisted men who died in the service of their country.

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WAR DEPARTMENT ORDERS

Changes of Station

To Chanute Field, Ill.: 2nd Lieut. Homer A. Boushey, from Fort Lewis, Wash., to pursue course of instruction, Airplane Maintenance Engineering at Air Corps Technical School.

To Buffalo, N.Y.: 1st Lieut. William T. Colman, from Fairfield Air Depot, Fairfield, O. for duty as Assistant Air Corps Representative at the Curtiss-Wright Corporation, Curtiss Airplane Division.

To Fort Riley, Kans.: 2nd Lieut. Hilmer C. Nelson, upon completion of present course of instruction at the Denver Branch of the Air Corps Technical School, and to duty with the 1st Observation Squadron.

To Materiel Division, Wright Field, O.: 1st Lieut. Paul G. Miller, from the 96th Bombardment Squadron, Langley Field, Va. Previous orders in his case amended.

To Randolph Field, Texas: Major Harry H. Mills, from duty at Army Industrial College, Washington, D.C.

To Maxwell Field, Ala.: Captain Henry R. Baxter, from Bolling Field, D.C., for duty as student in the 1938-1939 course at the Air Corps Tactical School.

To the Philippines: 2nd Lieut. Charles B. Harvin, upon completion of Airplane Maintenance Engineering course at Air Corps Technical School, Chanute Field, Ill.

Reserve Officers to Extended Active Duty

2nd Lieut. Richard William Simons, West Plai Mo., to Mitchel Field, N.Y., to June 14, 1941.

2nd Lieut. Pete Brewster, Birmingham, Ala., to San Antonio Air Depot, Duncan Field, Texas, to May 26, 1941.

2nd Lieut. Ralph William Rodieck, San Antoni Texas, to March Field, Calif., to Sept. 23,194

2nd Lieut. Arch Graham Campbell, Fort Worth, Texas, to Barksdale Field, La., to June 24,194

2nd Lieut. Theodore Q. Graff, Ada, Ohio, to Patterson Field, Ohio, to June 20, 1941.

Transferred to the Air Corps

1st Lieut. Joseph E. Barzynski, Jr., Inf., June 16, 1938, and to Mitchel Field, N.Y., for duty with the 97th Observation Squadron.

Assigned to the Air Corps

2nd Lieut. Harry G. Benion, from duty with the 34th Infantry at Fort George G. Meade, Md. and to Randolph Field, Texas, for flying training with the class commencing July 1, 1938.

Relieved from assignment to Air Corps

2nd Lieut. James H. Skeldon, Infantry, from Air Corps Training Center, Randolph Field, Tex. and to the 2nd Division with station at Fort Francis E. Warren, Wyoming.

Orders Revoked

Assignment of Captain Milton M. Towner, of Mitchel Field, N.Y., for duty as student in the 1938-1939 course at the Air Corps Tactical School, Maxwell Field, Ala.

Retirement

Master Sergeant Clarence Baird, Hqrs. and Hqrs. Squadron, 2nd Wing, GHQ Air Force, Langl Field, Va., June 30, 1938.

The Acting Secretary of War, the Hon. Louis Johnson, announced on July 1st the placing of contracts totaling the sum of $14,433,196.88 for 98 airplanes and extensive Air Corps equipment.

These airplanes now under order are of the latest fighting types developed by the Army and the aircraft industries in America.

The first of these contracts is for the procurement by option under existing contract from the Boeing Aircraft Company, Seattle, Wash., of 13 additional B-17B four-engine Bombers, known as the "Flying Fortress." This will place on hand or on order a total of 52 of these huge Bombers.

"The Flying Fortress is definite proof," Colonel Johnson points out, "that America still maintains its position of leadership in aeronautical design, despite the fact that other nations are spending many times the amount of money available in this country for that purpose."

The cost of this order for "Flying Fortresses" is $3,174,802.05. Each of them will be powered by four Wright "Cyclone" engines, manufactured by the Wright Aeronautical Corporation, of Paterson, N.J. This is the same type of airplane as those which recently made a successful flight to Buenos Aires and return, covering approximately 6,000 miles in a total flying time of 34 hours and 25 minutes. They can attain a high speed well in excess of 250 miles an hour and carry five machine guns and a crew of nine.

The second contract, and the largest, is for 78 additional B-18A Bombardment airplanes at a cost of $5,703,287.64. Colonel Johnson states that the War Department exercised an option with the Douglas Aircraft Company, Inc., Santa Monica, Calif., in the procurement of these planes, which now increases to over 250 the number of airplanes of that type purchased under the existing contract at a total cost of approximately $15,000,000. This contract, with the option now taken, is by far the largest contract for airplanes ever placed by the Army in times of peace.

The B-18A airplane is a two-engine Bomber and attains a speed in excess of 225 miles per hour. It is equipped with retractable landing gear, flaps, directional gyro and all other modern aircraft improvements. Each airplane is powered by Wright Cyclone engines.

The purchase of both the "Flying Fortresses" and the B-18A airplanes by option under existing contracts enables the War Department to take advantage of favorable prices secured on large-scale purchases and thus effect a material economy in the procurement of these planes.

The third purchase is for seven YA-19 Attack airplanes at a total cost of $297,180. to the Vultee Aircraft Division of the Aviation Manufacturing Corp., Downey, Calif. The YA-19 all-metal, low-wing monoplane, powered by a Pratt-Whitney "Twin Wasp" 14-cylinder radial air-cooled engine, is a new type of three-place Attack plane expected to attain a speed of more than 230 miles per hour. It is designed to carry 600 lbs. of bombs either in external or internal racks, six machine guns, four fixed and two flexible.

The YA-19 is equipped with electrically controlled, retractable landing gear; it has a wing span of 50 feet, an overall length of 36 feet, 11 inches, and a height of 10 feet. The plane's gross weight, including fuel and armament load, is over ten thousand pounds.

Colonel Johnson pointed out that the YA-19's are the largest and fastest single-engined Attack planes yet procured for the Army and believed to have no superior in that class abroad.

Four large engine contracts, totaling $2,573,286.65 for 276 engines were announced. These are as follows:

To the Wright Aeronautical Corporation, Paterson, N.J., for 108 Model R-1820-49 engines required for type C-39 Transport Cargo (Douglas) planes, totaling $922,860.

To the Allison Engineering Co., Indianapolis, Ind., for 40 Model V-1710 engines for use in types YFM-1, YFM-1A and YlP-37A airplanes, totaling $987,891.65.

To the Pratt & Whitney Division, United Aircraft Corporation, 117 Model R-985-17 engines, required for type C-40 Transport Lockheeds and Model OA-9 Gruman Observation Amphibians, totaling $548,437.50; for 11 Model R-1830-17 engines for installation in 7 Vultee Attack (YA-19) airplanes, totaling $114,097.50, grand total, $662,535.00.

The following contracts were also awarded:

1. A contract award to the Douglas Aircraft Co., Inc., Santa Monica, Calif., in the amount of $766,591.37, covering approved changes in 177 Model B-18A airplanes.

2. A contract, involving the total cost of $200,574.61, awarded to the Douglas Aircraft Co., Inc., Santa Monica, Calif., covering miscellaneous changes requested in 37 Type C-39 Transport Cargo airplanes. One of the principal changes involved concerns the fourth airplane in the contract, which is to be made for personal transport. This plane will be redesignated as C-41.

3. A contract award to Eclipse Aviation Corporation, East Orange, N.J., in the sum of $44,555.00, covering the purchase of 7 additional Accessory Power plants required for installation in YFM-1 airplanes.

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4. A contract award to the Pittsburgh Screw & Bolt Corporation, Pittsburgh, Pa., in the sum of $30,000.00, covering the purchase of propeller blades and data required for experimental purposes.

5. A contract award to Curtiss Propeller Division, Curtiss-Wright Corporation, Buffalo, N.Y., in the amount of $41,963., covering the purchase of propeller hubs, propeller assembly, and sets of controls and data required for experimental purposes.

6. The award of a contract to Engineering & Research Corporation, Washington, D.C., in the amount of $29,702.00, covering the purchase of propeller blades and data required for experimental purposes.

7. A contract award to Link Aviation Devices, Inc., Binghampton, N.Y., in the total amount of $135,600.00, to cover the procurement of Instrument Flying and Landing Trainers, including data.

8. Contract award to the United Aircraft Corp., (Pratt & Whitney Aircraft Division), East Hartford, Conn., in the amount of $58,884.25, covering the purchase of spare parts.

9. A change order, in the amount of $29,075.00, covering the purchase of additional propeller assemblies from the United Aircraft Corp. (Hamilton Standard propellers Division), East Hartford, Conn.

10. Contract award to The Corbitt Company, Henderson, N.C., in the sum of $99,090.11, covering the purchase of 5 truck-tractors (motor), for F-1 fuel servicing truck, 4 truck-tractors (motor) for type C-2 wrecking truck, and 4 semi-trailers for type C-2 wrecking truck.

11. Contract award to Standard Steel Works, North Kansas City, Mo., in the sum of $99,977.50, for ten semi-trailer tanks (4,000-gal. capacity) for fuel servicing truck.

12. Contract award to the Gar Wood Industries, Inc., Detroit, Mich., in the sum of $3,044.65, covering the purchase of 5 dollies (trailer converter) for fuel servicing truck.

13. Contract award to the Fruehauf Trailer Company, Detroit, Mich., in the sum of $2,264.00, covering the purchase of 4 dollies (trailer converter) for type C-2 wrecking truck.

14. Contract award to Covered Wagon Company, Mount Clemens, Mich., in the amount of $68,425.00, covering the purchase of 23 portable photographic laboratories (Type A-1A) (Trailer).

15. Contract award to Suncook Mills, Suncook, N.H., in the amount of $116,777.25, for the purchase of mercerized cotton airplane fabric required for maintenance and repair.

16. Contract award to Rohm and Haas Company, Philadelphia, Pa., in the amount of $55,154.80, covering the purchase of five items of plastic sheet (transparent, Acrylate base), required for maintenance and repair of airplanes in the service.

17. Contract award to United Aircraft Corporation, Hamilton Standard Propeller Division, East Hartford, Conn., in the amount of $140,600.00, for the procurement of Governor Assemblies, propeller control.

18. Contract award to Curtiss-Wright Corporation, Curtiss Propeller Division, Buffalo, N.Y., in the amount of $40,150.00, for the procurement of Governor Assemblies, propeller control.

19. Contract award to Bendix Products Corporation, South Bend, Ind., in the sum of $66,660.00, covering the purchase of automobile mixture control assemblies for installation in Model B-18 airplanes.

20. A change order in the amount of $99,999.00, covering the purchase of additional aircraft engine fuel, from Shell Petroleum Corporation, St. Louis, Mo.

21. A change order in the amount of $72,500.00, covering the purchase of additional type K-3B and additional type K-12 aircraft cameras, from Fairchild Aerial Camera Corporation, Jamaica, Long Island, N.Y.

22. Contract award to Eclipse Aviation Corporation, East Orange, N.J., in the total amount of $224,770.00, covering the purchase of accessory power plants and data.

23. Contract award to United Aircraft Corporation (Hamilton Standard Propellers Division), East Hartford, Conn., in the sum of $67,840.00, covering the purchase of propeller assemblies, tools and data, required for installation in 26 Observation-Amphibian airplanes, Model OA-9.

24. Contract award to Curtiss-Wright Corporation, Curtiss Propeller Division, Buffalo, New York, in the sum of $72,963, covering the purchase of controllable propeller assemblies, constant speed controls, cockpit controls, and servicing tools and data, to be used as equipment for YFM-1 and YFM-1A airplanes.

25. Contract award to the Eclipse Aviation Corporation, East Orange, N.J., in the total amount of $66,780.00, covering the purchase of additional type C-20 and additional type C-21 starter assemblies required for C-39, YA-19, and OA-9 airplanes now under construction, and for repair of Model B-18A airplanes now in service.

26. Contract award to Pittsburgh Screw & Bolt Corporation, Pittsburgh, Pa., in the sum of $50,700.00, covering the purchase of propeller blades and data, required in the fabrication of propeller assemblies to be installed in YFM-1 and YFM-1A airplanes, now under construction by the Bell Aircraft Corporation.

In making the announcement of these awards, the Acting Secretary explained that the placing of these contracts, especially of the additional 91 Bombardment and of the 7 new type Attack planes, marks the culmination of a year of intensified effort toward the reaching of the

objective set by the Baker Board which was to procure 2320 modern first line aircraft by July 1, 1940.

It is interesting to note that in the Fiscal Year ending June 30, 1938, contracts were placed for 588 airplanes at a total cost of approximately $29,000,000.00, divided as follows:

Pursuit	236
Bombardment	118
Attack	35
Observation	33
Primary Trainers	20
Cargo	51
Basic Combat	95
	588

These contracts were divided among ten aircraft manufacturers and were in the main awarded as a result of the competitive bidding system utilized by the Air Corps. During the year contracts were likewise awarded for 732 aeronautical engines at a total value of $6,000,000. The engine contracts were placed with four aeronautical engine manufacturing companies.

Government furnished equipment purchased during the year, consisting of radio, armament, instruments and other aeronautical appliances for installation in airplanes purchased, amounted to approximately $7,500,000.

Analyzing the results of the contracts thus totaling $42,500,00.00 in 1938, Colonel Johnson states: "These ships, purchased this year, type for type, are the equal, if not the superior, of like types in any part of the world, and clearly establish the fact that the United States is not lagging behind other nations in aeronautical development, but on the other hand has assumed, and will maintain its position in the forefront of aviation."

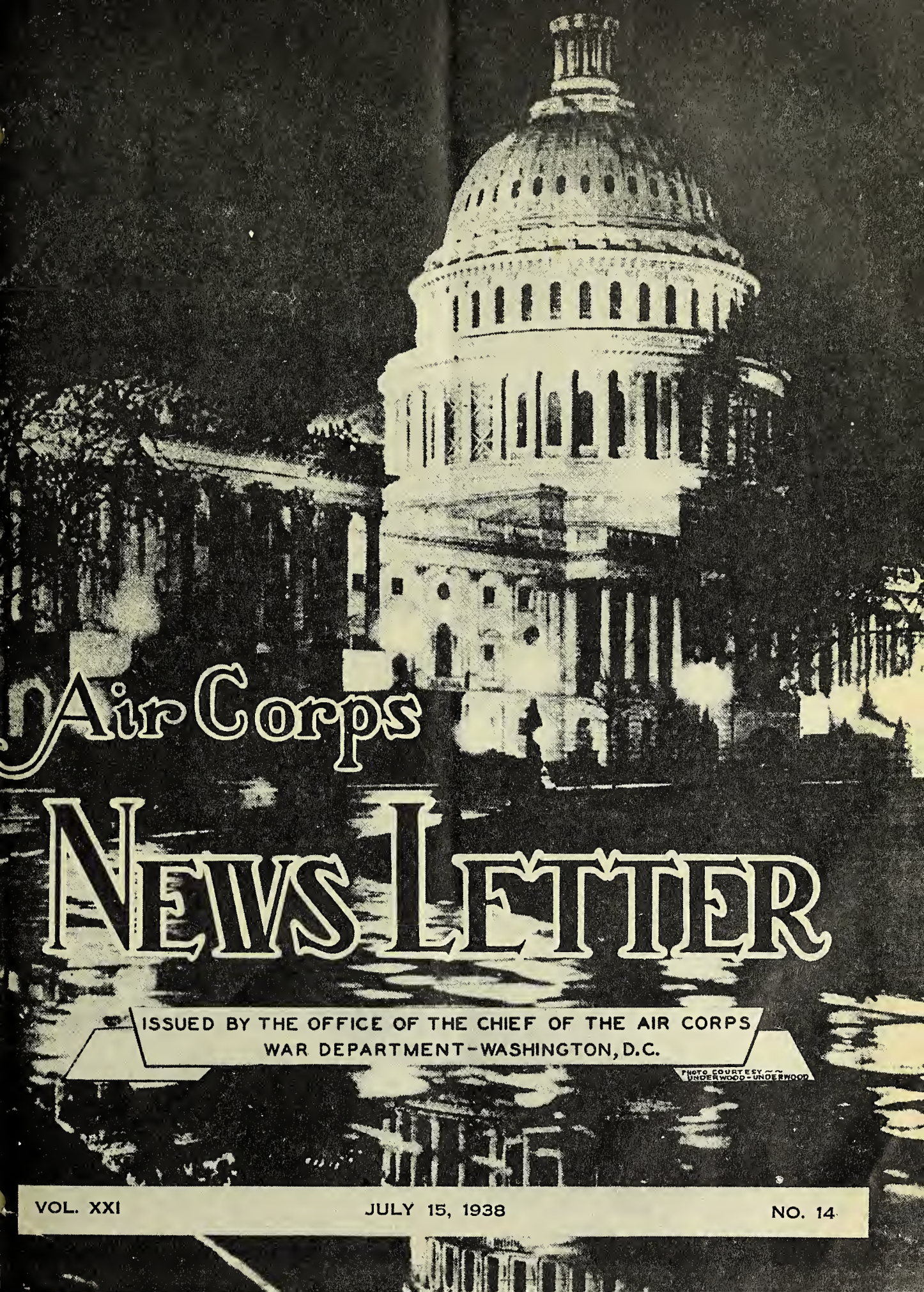
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AIR CORPS SECOND LIEUTENANTS PROMOTED

The following-named second lieutenants of the Air Corps were promoted to the rank of first lieutenant, as of June 30, 1938:

Ray W. Clifton	Lawrence S. Fulwider
Randolph L. Wood	Lester S. Harris
Arnold T. Johnson	Donald N. Wackwitz
Marvin F. Stalder	James H. C. Houston
Noel F. Parrish	Charles H. Leitner, Jr.
Dolf E. Muehleisen	Clair L. Wood
Carl Swyter	Charles B. Harvin
Richard C. Weller	George H. Macintyre
Edward M. Gavin	Bob Arnold
Robert E. Jarmon	Burton W. Armstrong, Jr.
Harry Crutcher, Jr.	Mel M. Stephenson, Jr.
Jack M. Malone	Harold L. Neely
Frank N. Moyers	Erickson S. Nichols
Edward S. Allee	Jasper N. Bell
Harry N. Renshaw	Russell L. Waldron
Joseph B. Stanley	William F. Day, Jr.
Clarence M. Sartain	Harry Coursey
James H. Price	Daniel E. Hooks
Joseph C. Moore	Raymond P. Todd

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Air Corps NEWS LETTER

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WAR DEPARTMENT - WASHINGTON, D.C.

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VOL. XXI AIR CORPS NEWS LETTER NO. 14.

Information Division
Air Corps

July 15, 1938

Munitions Building
Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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EMERGENCY FLOTATION FOR LAND AIRPLANES

By the Materiel Division Correspondent

The desirability of providing a means of keeping a land airplane afloat in case of a forced landing on water was early recognized. The Engineering Division, Air Service, worked on this problem at McCook Field following the World War. The first experiments were conducted on a DH-4 airplane fitted with an emergency flotation gear consisting of inflatable rubber bags mounted under the wings and air bags in the tail. Wing pontoons were installed near the wing tips and hydrovanes in front of the landing gear. The latter prevented nosing over and supported the weight of the airplane in landing until sufficient speed had been lost to prevent the bags from being torn off. A vane on the tail skid was used to hold the tail down. The tests indicated, however, that the hydrovane in front of the landing gear did not ride the surface of the water and the tail skid vane did not engage the water during landing. There was no tendency to nose over.

There was no further development of emergency flotation gear by the Air Corps until about the year 1930. At that time the O-2H airplanes were equipped with emergency flotation equipment which had been developed by the Navy. The Naval gear consisted of flotation bags folded into a quick-opening container installed inside the upper wing and a cylinder of liquid carbon dioxide fitted with a release valve. The gear was operated by manual release, discharging the carbon dioxide into the system, which in turn released and inflated the flotation bags. Since the bags were carried inside the wings and fuselage, there was practically no drag on the airplane.

An Air Corps policy requiring emergency flotation on all airplanes required to fly over water became effective in 1932. Specifications were prepared based on the Navy requirements. The equipment was required to operate automatically upon landing in the water. A manual release was provided for emergency. Considerable experimental work was necessary to establish the ratio of the cubical size of the bag containers in relation to the bag sizes. Automatic valves which could be operated either manually or automatically, together with a bag release operated by CO_2 pressure, were developed. An experimental gear was purchased and installed on a surveyed O-17 airplane which was rolled into Huffman Lake near Patterson Field to check the automatic valves, time of inflation, and other characteristics. This type of flotation equipment was installed on practically all airplanes in foreign service.

The maintenance cost of this type of equipment ran high, due to functional tests required periodically to insure it being in working order. The rubber flotation bags deteriorated rapidly, as a result of being folded in the wing containers. In one case accidental release of CO_2 inflated the bags in the air and caused the loss of the airplane.

The advent of plywood-covered wings and of all-metal wings suggested the possibility of using watertight compartments in the wings, tail surfaces, or fuselages for the desired flotation. Preliminary studies indicated that the watertight compartments could be built into the wings and other units of the airplane with less weight increase than by using gas-inflated bags.

Accordingly, tentative requirements were set up and the Glenn L. Martin Company was contacted regarding the possibility of incorporating watertight flotation in at least some of the B-10 or B-12 airplanes then under construction. The study of this problem indicated that the built-in flotation could be installed with a weight increase of approximately 50 pounds per airplane, as compared with a probable weight of 105 to 110 pounds for the CO_2 equipment. Built-in flotation was included in the B-12A airplanes.

Today all types of Air Corps combat airplanes, except single-place Pursuit and basic combat airplanes, are required to have a means of flotation when forced down on water.

Built-in flotation in accordance with U.S. Army Specification 40233 is being incorporated in all Air Corps airplanes, except as noted above. This specification required that flotation be provided

with 35 percent excess buoyancy in the form of watertight compartments in the wings, tail surfaces, or fuselage; and that adequate vents be provided to prevent a differential pressure in excess of 12 pounds per square foot in either a climb or a dive from service ceiling. Provisions for using a bilge pump are also required in order to overcome leakage which might develop from age or stresses in landing.

The specification also requires that the compartments be watertight and capable of holding a test water or air pressure for one hour without signs of leaks. Due to the type of structure used in wings, considerable difficulty was experienced by Air Corps contractors in meeting this requirement. In order to overcome this, test specimens in the form of a section of a two-spar wing were fabricated from heat-treated alloy, using sealing compounds in the seams, for test by the Air Corps Materiel Division. The results of these tests indicate that flotation compartments can be made watertight, provided the structure is adaptable to being sealed with tape impregnated with sealing compound.

It is being found practically impossible so to locate built-in compartments that the airplane will float horizontally and right side up, especially in the smaller airplanes. The watertight compartments are in the wings and the concentration of weight due to installation of the engines and other equipment forward of the wings produces a tendency for the nose to submerge. This can usually be corrected by shifting the crew aft when the airplane is afloat. After the crew is removed the tendency to nose down is not so important, since the airplane can be salvaged in this attitude satisfactorily.

In recent years the Air Corps has had very few landings in water with airplanes equipped with built-in flotation, but it has proved satisfactory in these few instances.

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FIELD TRAINING FOR 4TH RECON. SQUADRON

The 4th Reconnaissance Squadron, stationed at Luke Field, T.H., was scheduled to move to Bellows Field on June 20th for its annual period of field training and ground gunnery. The entire Squadron was to be included and the movement made by truck and airplane. The training was to be progressive and to include:

.30 Cal. machine gun firing on 1000 inch range, using flexible aerial guns.

.45 Cal. pistol shooting by all personnel, (commissioned).

.45 Cal. pistol shooting by all personnel authorized to fire for record.

.30 Cal. aerial machine gun firing as in Event I, Phase I of Training Regulations 440-40; training in bombing also to be continued if time permits.

"Our cooperative mission with Battery 'A,' 15th Coast Artillery, of locating targets for 16-inch guns at long ranges is progressing nicely," reports the News Letter Correspondent, and he adds: "A definite procedure has been worked out and is now being perfected."

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A WEATHER MAN OF MANY DEGREES

The promotion of Captain Randolph P. Williams, weather officer of the General Headquarters Air Force at Langley Field, Va., to the rank of Major was recently announced.

Under the newly installed system, the Air Corps has its own weather observers. It is the job of Major Williams to see that the six air bases of the General Headquarters Air Force in Louisiana, California, Virginia, New York and Michigan are supplied with the proper weather information and that it is properly disseminated at these bases.

Major Williams possesses four aeronautical ratings, those of Airplane Pilot, Airplane Observer, Airship Pilot and Balloon Observer.

Schools from which he holds graduation certificates include the Engineers' School, Belvoir, Va. (then Fort Humphreys); the Air Corps Balloon and Airship School at Scott Field, Ill.; the Air Corps Engineering School, Wright Field, Ohio; the United States Military Academy, West Point, N.Y., with degree of B.S.; and the Massachusetts Institute of Technology, Cambridge, Mass., with degree of M.S. In addition, Major Williams took a post graduate course in aerology at the U.S. Naval Academy, Annapolis, Md., and he holds the honorary degree of Doctor of Science from the South Dakota School of Mines.

Major Williams is a native of Baltimore, Md., and claims Washington, D.C., as his home town.

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A CORRECTION

In the previous issue of the Air Corps News Letter, listing the names of Air Corps officers who graduated on June 22d from the Army War College, the name of Colonel Henry W. Harms was inadvertently omitted. The News Letter regrets the omission.

Colonel Harms, who is now on leave of absence, is slated for assignment to duty in the Supply Division, Office of the Chief of the Air Corps. Prior to his assignment as a student at the Army War College, he was Commandant of the Primary Flying School, Randolph Field, Texas. He will return to familiar surroundings, since some ten years ago he was on duty in the Materiel Liaison Section of the Chief's Office.

V-7791, A.C.

MARCH FIELD TRAINS ORDNANCE RESERVE OFFICERS

Under the direction of the Commanding General of the General Headquarters Air Force, there has been organized an Ordnance Service which is responsible for furnishing bombs, pyrotechnics, machine gun ammunition, and guns of all kinds to all organizations of the GHQ Air Force. Due to shortage of personnel, its peace time strength is approximately 20% of its proposed war time strength. Accordingly, authorization to assign 25 Ordnance Reserve Officers to the Ordnance Service of the GHQ Air Force was granted early this year. The duty of obtaining and training these officers was assigned to March Field.

Within two months after the authorization, the full quota of Ordnance Reserve officers had been transferred to the GHQ Air Force and assigned to March Field for training. All of these officers now reside in Southern California, and for this reason it was possible to assign all of them to March Field for training. On M-day their assignments will be spread out over all of the bases of the GHQ Air Force.

In April of this year, the following four officers received two weeks' active duty training at March Field:

1st Lieut. F.E. Whittenburg
2nd Lieut. R.G. Goodall
2nd Lieut. M. Hicks
2nd Lieut. A. Curtis

In June of this year, the following four additional officers received two weeks' active duty training at March Field:

1st Lieut. H.J. Galbraith
1st Lieut. K.J. Soderberg
1st Lieut. D.E. Willetts
1st Lieut. G.S. Johnson

The training of these officers was so arranged that they were able actually to assist in the preparation of bombs and other Ordnance equipment while they were at March Field. They accompanied the 17th Attack organizations in some of their tactical training missions; they observed the 19th Bombardment Group personnel receiving training in bomb dropping by flying with them in Bombardment airplanes when bombs were being dropped. Two days were spent at Muroc assisting in the preparation of bombs and inspecting the Muroc bomb storage and target facilities. They observed the method used in the destruction of dud and explosive bombs at Muroc. Naturally, they also experienced the Muroc climate both day and night. The general opinion of the officers who received this training was that it was the most valuable and most enjoyable period of active duty which they had ever experienced. All of them were anxious to have another tour of active duty under the same conditions.

While on active duty, the officers were attached to the 4th Platoon of the 10th Ordnance Service Company which is stationed at March Field. The training was conducted by personnel of the 4th Platoon, which is commanded by Captain Philip Schwartz, Ordnance Department. Technical Sergeant William Steinback of the 4th Platoon accompanied the officers during all of their instruction periods.

It is understood that efforts are now being made to have Reserve officers of other branches besides Ordnance assigned to the GHQ Air Force. The successful assignment and training of Ordnance officers has shown that similar assignments of officers of other branches are both practicable and desirable.

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AIRCRAFT TRAFFIC AT ATLANTA AIRPORT

Advice received from the Commanding Officer of the Air Corps Detachment, Municipal Airport, Atlanta, Ga., is to the effect that during the fiscal year 1938, with a detailed emergency crew of two enlisted men - except that when traffic was in flights of more than two airplanes the hangar crew was called out to assist - the following transient aircraft traffic was handled at that station:

Total airplanes handled throughout the fiscal year numbered 2,051. Of this total, 1,356 were Army aircraft and 695 were aircraft of the U.S. Navy. These figures do not include airplanes used by Reserve officers on inactive status and on 14-day active duty periods.

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PROMOTION OF AIR CORPS OFFICERS

The following-named Air Corps officers received promotion to the permanent rank indicated, effective July 1, 1938:

Brigadier Generals Delos C. Emmons and Arnold N. Krogstad, Wing Commanders, and holding the permanent rank of Lieutenant Colonel, to Colonel.

Majors (temporary) Joseph L. Stromme, Rudolph W. Propst, Frank D. Hackett, Aaron E. Jones and Robin A. Day, to Major.

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Major George S. Warren, Air Corps, was given the temporary appointment of Lieut. Colonel, with rank from July 1, 1938.

Effective August 11, 1938, Colonel Percy E. Van Nostrand, Air Corps (General Staff), is relieved from detail as a member of the General Staff Corps, from assignment to the War Department General Staff, and from further duty in the Office of the Chief of Staff, Washington, D.C., and assigned to March Field, Calif.

26TH ATTACK SQUADRON FLIES TO KAUAI
By 1st Lieut. E.W. Suarez, Air Corps

The Island of Kauai, the oldest of the Hawaiian Group and some 90 miles westward from Oahu, was the setting for one of the most pleasant field exercises ever conducted by the 26th Attack Squadron.

Greeted by clear skies and warm semi-tropical sunshine, nine A-12 airplanes recently rose from Wheeler Field and headed westward to cross ninety miles of open sea. At 8,000 feet, the nine airplanes leveled off and proceeded to enjoy a flight which for glassy-smoothness is seldom experienced by Attack airplanes. A small speck, some 7,000 feet below, gave assurance to all that the OA-8 Amphibian plane was on the job to insure a safe crossing.

In the Hawaiian Island Group, each island has some characteristic of historical or natural interest different from the others. The aerial view of these islands gives the impression of sugar cane and pineapples. To realize the hidden beauty of these islands, it is necessary to go by automobile to the out of the way spots. The 26th Attack Squadron was exceedingly fortunate to see Kauai from the ground.

The huge Waimea Canyon, made when Madam Pele was rampant centuries ago, can be compared only to the Grand Canyon of Arizona. The grandeur of this canyon cannot be described in writing. Looking down hundreds of feet, one sees a small stream coursing its way to the ocean; then, as his gaze wanders to the precipitous sides, he observes a blending of all the colors of the spectrum. A slight mist affords a rainbow. Surely, this sight will long be remembered by personnel witnessing it.

Barking Sands is a stretch of beach where, some of the oldtimers say, the crunching sound of the strides of barefooted warriors, long dead, can still be heard when the weather conditions are right for the warriors to roam.

The stone wall built by the Menehunes, legendary brownies, sprang up over night, each stone almost the size of a brownie.

Laie Bay is truly the garden spot of all Kauai. A cove sheltered by high cliffs on two sides, white sands, tropical vegetation, a stream emptying into the ocean, all combine to form a pretty picture. One can easily imagine being transplanted in old Hawaii with gay, dancing natives making the skies ring with their carefree laughter.

The McBryde Estate is now open to the public, thus enabling everyone to enjoy a scene of beauty which was once the privilege of only a few. Tall tropical trees, brilliant flowers, roaming peacocks, all make this truly a rare sight.

During the say, all personnel were afforded the opportunity of viewing the Island of Niihau from the air. This island, about twenty miles off the coast of Kauai, is owned by the Robinson brothers. The Robinsons and 150 full-blooded Hawaiians are the sole inhabitants of the island. It is one of the few remaining estates run on a feudal basis.

There are sections of white sanded beach where one can find hundreds of skulls and bones. It was never definitely explained whether these are grave yards or old battlefields. One attached pilot would like to believe that they are old battlefields, for he proudly exhibits in his office a skull and some bones as his trophy. Even though the skull is small enough to be that of a woman, let us say, for his sake, that the sands are historic battlefields.

And so when the 26th Attack Squadron said "Aloha" to Kauai, it was with the feeling that some day it would again be its privilege to enjoy Kauai's gardens of rare beauty.

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ACTIVITIES GROWING AT HICKAM FIELD

With greatly increased activity at Hickam Field, T.H., more and more departments of the 5th Bombardment Group are setting up offices there. In addition to the 23rd, 31st and 72nd Bombardment Squadrons operating their B-18's out of the new hangars, the squadron operations, communications and meteorological section are expected to join the Group Materiel Section in the new Operations Building in the near future. The Group Headquarters remains at Luke Field.

Using ships' weather reports as a source of information on vessels in the vicinity of the Hawaiian islands, navigators of the 5th Bombardment Group are devoting a large part of their time in conducting search and interception missions. With the large amount of water traffic in and out of this, the "Crossroads of the Pacific," an unusual opportunity is provided for training of this type.

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Effective on or about August 15, 1938, Lieut. Colonel Ralph H. Wooten, Air Corps, General Staff, is relieved from assignment to the War Department General Staff and from assignment and duty in the office of the Chief of Staff, Washington, D.C., and is then assigned to the General Staff with troops and to duty at the American Embassy, Santiago, Chile, as military attache and military attache for air to Chile and Bolivia.

THE NEW CLASS AT THE ADVANCED FLYING SCHOOL

Class 38-C, the largest in the peacetime history of Kelly Field, consisting of 65 Regular Army officers and 83 Flying Cadets, Air Corps, reported from the Primary Flying School, Randolph Field, Texas, on June 27, 1938, for training at the Advanced Flying School.

In this class there are eight sons of Army officers, namely:

2nd Lieut. Charles B. Westover
" Samuel C. Gurney, Jr.
" Malcolm Green, Jr.
" Harold E. Marr, Jr.
" Marshall R. Gray
" Alan D. Clark
" Horace Greeley
Flying Cadet Eriksen E. Shilling

The following Flying Cadets were appointed from the enlisted ranks of the Regular Army:

Edwin S. Green, Cavalry
Sig Rogers Young, Air Corps
Kenneth M. Welborn
Forrest H. Baxter, Air Corps

The period from June 27th to July 1st was devoted to processing the new class, and a number took advantage of short leaves of absence over the 4th of July. Flying and ground training commenced on July 5, 1938.

The class was assigned to Sections of the Advanced Flying School, as follows:

Attack Section: 16 officers and 14 Flying Cadets.

Bombardment Section: 24 officers and 14 Flying Cadets.

Observation Section: 6 officers and 14 Flying Cadets.

Pursuit Section: 19 officers and 41 Flying Cadets.

When the above class commenced training at the Primary Flying School on October 15, 1937, it numbered a total of 271 students (105 officers and 166 Flying Cadets). Since a total of 148 students reported for advanced training at Kelly Field on June 27th, it will be noted that 54.6% of the class which started training successfully completed the primary and basic courses at the Primary Flying School.

The class is expected to graduate early in October, 1938.

The students now undergoing their advanced training at Kelly Field are given below, as follows:

OFFICERS

Attack Section

Denson, Render Dowdell	Birmingham, Ala.
Andrews, Frank William	Glendale, Calif.
Leland, Gordon Custer	San Jose, Calif.
Green, Malcolm, Jr.	Sausalito, Calif.
Posey, James Theo	Henderson, Ky.
Brummel, Donald Bowen	Chicago, Ill.
Marr, Harold Everett, Jr.	Searport, Me.
Low, Curtis Raymond	Needham Heights, Mass.
van Leuven, Harry Francis	Minneapolis, Minn.
Durham, Jasper Newton	Salem, Mo.
Barden, Richard Risley	Pen Yan, N.Y.
Miller, Joseph Alfred,Jr.	Brevard, N.C.
Herman, Robert Hensey	Middletown, Ohio
Hipps, William Grover	Curwensville, Pa.
Eckman, Walter	Houston, Texas
Pell, Floyd Joaquin	Ogden, Utah

Bombardment Section

Caldwell, Jack Edward	Searcy, Ark.
Wade, Kenneth Sayre	San Diego, Calif.
Preston, Maurice Arthur	Tulare, Calif.
Clark, Alan Doane	Washington, D.C.
Diehl, Conrad Henry, Jr.	Washington, D.C.
Rutherford, Alvord	Washington, D.C.
Westover, Charles Bainbridge	Washington, D.C.
Dorney, Harvey Charles	Olney, Ill.
Horrigan, William Kienle	Fort Thomas, Ky.
Taylor, Robert, 3rd	Baltimore, Md.
Spilman, Lawrence Augustus	Ottumwa, Iowa
Gray, Marshall Randolph	Newton Center, Mass.
Donohew, Jack Norman	Slater, Mo.
McDonald, William Emmett	Urich, Mo.
Ohman, Nils Olof	East Dedham, Mass.
Sanborn, Kenneth Oliver	Potter Place, N.H.
Gurney, Samuel Charles,Jr.	Ridgewood, N.J.
Hackford, Richard Hilton	Gardenville, N.Y.
Greeley, Horace	Jackson Heights, N.Y.
Agee, Sam Wilkerson, Jr.	Silver City, N.M.
Dunlop, Woodrow William	Manville, R.I.
Conway, Walter Clem	Abilene, Texas
Batjer, John Francis	Houston, Texas
Holcomb, George Lawrence	Kemp, Texas

Observation Section

Mauldin, Whiteford Carlisle	Lockesburg, Ark.
Powell, Thomas Everett	San Francisco, Calif.
Tarro, John Albert	Ill.
Lee, Robert Merrill	Me.
Mosby, John Trueheart	Va.
Stratton, Wilbur Harvey	Seattle, Wash.

Pursuit Section

Hammond, Harry Edwin	Pine Bluff, Ark.
Sprague, Charles Andrews	Bridgeport, Conn.
Robbins, Charles Louis	Elkhart, Ind.
Clingerman, William Ray, Jr.	Terre Haute,Ind.
Holdiman, Thomas Alexander	Marshalltown, Iowa
Lesser, Robert Fales	Lincolnville,Me.
Magoffin, Morton David	Deerwood, Minn.
Ulricson, John Russell	Milford, N.H.
Cain, William Joseph, Jr.	Bayonne, N.J.
Stark, Charles William, Jr.	Trenton, N.J.
Klocko, Richard Phillip	Dunkirk, N.Y.
Bondley, Charles John, Jr.	Ohio
Wright, Harold Bell	Calvin, Okla.
Ellis, Gale Eugene	Beaver Falls, Pa.
Holloway, Bruce Keener	Knoxville, Tenn.
McElroy, Ivan Wilson	Austin, Texas
Fellows, Richard William	Algoma, Wis.
Eriksen, John Gordon	Milwaukee, Wis.
Stevenson, John Dudley	Tie Siding, Wyo.

All but four of the officers above listed are second lieutenants and members of the class which graduated from the U.S. Military Academy, West Point, N.Y., June 12, 1937. The four exceptions are Captain John Albert Tarro, V-7791, A.C.

Air Corps; 1st Lieuts. Charles John Bondley, Jr., Coast Artillery Corps; Robert Merrill Lee, Cavalry, and John Trueheart Mosby, Infantry.

F L Y I N G C A D E T S

Attack Section

DeShazo, Robert Vernon	Leeds, Ala.
Young, Sig Rodgers	Tucson, Ariz.
Moffett, Christopher Otho	Fordyce, Ark.
Bylander, Richard Murray	Little Rock, Ark.
Flack, Rudolph Emil	West Los Angeles, Calif.
Robinson, Gerald Graham	Los Angeles, Calif.
Stuart, Robert Hartwell	San Jose, Calif.
Cole, Perry Sherman	Washington, Ind.
Welborn, Kenneth Moses	Ky.
Nichols, Thomas Brooks	Lexington, Ky.
Hubbard, Ronald Dean	Warren, Ohio
Madre, John Douglas	Memphis, Tenn.
Howery, Allen Moore	Russellville, Tenn.
Arnold, Walter Erath	El Paso, Texas

Bombardment Section

Wade, Horace Milton	Magnolia, Ark.
Courtney, Harold Douglas	Fullerton, Calif.
Green, Edwin Smith	Imperial, Calif.
Lindsay, James Robert	Santa Paula, Calif.
Nisbett, Charles Albert	East Hartford, Conn.
Manierre, Ernest Roderic	Hartford, Conn.
Proctor, John Peebles	Athens, Ga.
Carlton, John Noble	St.Peter, Minn.
Eisenhart, Charles Marion	Culbertson, Neb.
McGinity, Frank Joseph	Denville, N.J.
Adams, Jack	Walters, Okla.
Sharp, Frank Douglas	Salem, Ore.
Sullivan, John Lynn	Scranton, Pa.
Bohnaker, William John	Platteville, Wis.

Observation Section

Bacon, Thomas Philip	Bessemer, Ala.
Fitzgerald, Maurice Joseph	Fort Smith, Ark.
McGowan, Leland Stanford	Alhambra, Calif.
Hopper, Rowland Wells	Fresno, Calif.
Lawrence, Reesor Mott	Oakland, Calif.
Heinlein, Oscar Allen	Sacramento, Calif.
Knorre, Frederick James,Jr.	San Francisco,Calif.
Eidson, Harry Taylor	Indianapolis, Ind.
Hamilton, McHenry, Jr.	Alexandria, La.
Casey, Edward Richard	Boston, Mass.
Longino, Houston Walker,Jr.	Silver Creek, Miss.
Nothstein, Charles Lewis	Norman, Okla.
Gilbert, Huntington Kerr	Dorset, Vt.
Kime, Duane Louis	Milwaukee, Wis.

Pursuit Section

Westbrook, Sam Wilkins	Faunsdale, Ala.
Tuell, Joseph Charles	Bisbee, Ariz.
Roberts, John Alva, Jr.	Beebe, Ark.
Willard, Edward DeLaney	Modesto, Calif.
Cleveland, William H.	San Francisco, Calif.
Toliver, Raymond Frederick	Fort Collins, Colo.
Starkey, James Fred	Greeley, Colo.
Greasley, Philip Henry	W. Hartford, Conn.
Shilling, Eriksen Emerson	Washington, D.C.
Fountain, Willard Asa	Hialeah, Fla.
Schwartz, Paul	Tampa, Fla.
Whitehouse, Robert Rempfer	Evanston, Ill.
Salzarulo, Raymond Paul	Richmond, Ind.
Kluever, Arnold F.A.	Atlantic, Iowa
Walker, Arthur James	New Orleans, La.
Feeney, Francis Robert	Boston, Mass.
Yurkanis, Paul John	South Boston, Mass.
Bullis, Harry J.	Portland, Mich.
Prichard, William Jesse	Inverness, Miss.
Sparks, Walter William,Jr.	Inverness, Miss.
Osborn, John William	Lincoln, Neb.
Thurman, Wayne Earl	Lincoln, Neb.
O'Brien, Frank Edwin	Concord, N.H.
Healy, John Patrick	North Bergen, N.J.
Pinkston, Gladwyn Earl	Phillipsburg, N.J.
Ward, Brewster	Buffalo, N.Y.
Quinn, Robert Sidney	Rochester, N.Y.
Wiper, Samuel Bey	Sheldon, N.D.
Stefonowicz, LeRoy Len	Wildrose, N.D.
Rockey, Guy Hamilton	Athens, Ohio
McKechnie, Robert Ross	Cleveland, Ohio
Mason, Joe Lennard	Columbus, Ohio
Wintermute, Ira Francis	Salem, Ore.
Sullivan, William A., Jr.	Aspinwall, Pa.
Baxter, Forrest Houston	Hazel, S.D.
Knox, John Max	Nashville, Tenn.
Taylor, Ozburn Early	Nashville, Tenn.
Holcombe, Elton Earl	Atlanta,Texas
Slayden, Van Hatton	Fort Sam Houston, Texas
McEntire, William Elza	Fort Worth, Texas
Hubbard, Glenn Elwood	Durand, Wis.

It will be noted that the State of California leads with 19 students claiming that State as their home. Texas follows next with 9; Arkansas, 8; Tennessee, 7; Massachusetts, New York, and Ohio, 6 each; Indiana and Wisconsin, 5 each, and remaining States with four or less. In the cities represented in this class, Washington, the nation's capital, leads with five students, followed by San Francisco, Calif., and Hartford, Conn., with 3 each; Los Angeles, Calif.; Boston, Mass.; Lincoln, Neb., and Nashville, Tenn., with 2 each. None of the other cities represented claim more than one student each.

The lure of aviation brought the namesakes of three famous Americans to the Air Corps Training Center, and who are members of the above mentioned class at Kelly Field. The namesakes are Horace Greeley, John L. Sullivan and Harold Bell Wright.

Lieut. Greeley explained that he is a descendant of the famous editor of the New York TRIBUNE, who coined the famous phrase, "Go West, Young Man." He believes he is a second or third nephew to the editor. He is the youngest son of the late Col. M.N. Greeley, of New York. Because there was no Horace Greeley in the immediate family, it was decided to name the youngest son after the great editor. Two of his brothers are in the Army, one in the Coast Guard and one in civil life.

Cadet John L. Sullivan, namesake of the once world's heavyweight champion, is a native of Scranton, Pa. When asked if his father was a fight fan, Cadet Sullivan, auburn-haired and freckled-face, queried, "What Irishman isn't?"

Second Lieut. Harold Bell Wright, Corps of Engineers, native of Calvin, Okla., said he started out in life as Harold Lambert Wright, but while a child he told everyone he was Harold Bell Wright, although he was too young to know he had taken the name of a famous writer of novels on life in the Ozark Mountains. Wright's name has been changed officially to Harold Bell Wright. He does not know if he is related to the novelist.

AIRPLANE MAINTENANCE BY THE 88TH SQUADRON

During the recent GHQ Air Force Exercises, the Second Provisional Transport Squadron was commanded by Major Newton Longfellow, who had for his officer personnel officers attached from various other organizations. The 88th Reconnaissance Squadron, Hamilton Field, Calif., furnished three of the five airplanes used by the Transport Squadron, and four of the airplanes were maintained by the 88th Squadron maintenance crews.

The Transport Squadron made four round trips from coast to coast, piling up a lot of flying hours. The maintenance crews kept the airplanes in good condition and established some sort of a record for keeping airplanes in commission. The total airplane time was over 700 hours, or an average of about 140 hours per airplane. One airplane had over 170 hours.

On one return trip to Hamilton Field, the Squadron landed at 6:45 p.m. on May 5th. The crews set to work and performed 40-hour inspections on four airplanes and had them all set for a 5:30 a.m. take-off the next day, May 6th. This was typical of all overnight stops. When the Squadron landed in the evening or late afternoon after flying all day, the crews would start right in on their servicing and inspections, working on most occasions long after dark getting the airplanes ready for an early take-off the next day.

Each trip took four days of flying, two days each way from coast to coast. On some of the trips an extra day was necessitated by bad weather.

It is interesting to note that the Hamilton Field radio station was able to maintain contact with the airplanes as far as Midland, Texas, a distance of over 1,200 miles.

The 88th Squadron is proud of the manner in which the airplanes performed and of their maintenance work which enabled the Transport Squadron to dart back and forth across the United States without any unnecessary delay or stopovers.

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CAPTAIN BRYTE LEAVES KELLY FIELD

Captain Walter G. Bryte, Air Corps, commanding the 64th School Squadron at the Air Corps Advanced Flying School, Kelly Field, Texas, departed on July 9th on a leave of absence prior to reporting to Maxwell Field, Montgomery, Ala., in September, where he has been ordered to duty as a student at the Air Corps Tactical School.

Captain Bryte graduated from the U.S. Military Academy with the Class of 1925, and from the Air Corps Advanced Flying School in September, 1926. He specialized in Bombardment Aviation and received the rating of "Airplane Pilot." He was rated as "Airplane Observer" in 1933. He has been on duty at Kelly Field since March 15, 1935, when he reported from Nichols Field, Manila, P.I. While at Kelly Field he served in many important capacities, including:

Instructor in the Bombardment Section from March 15, 1935, to December 1, 1936;

Commandant of Flying Cadets from June 1, 1936, to December 1, 1936;

Secretary and Public Relations Officer, Air Corps Advanced Flying School, from December 1, 1936, to July, 1937.

Since the date last mentioned he served as Commanding Officer of the 64th School Squadron.

Captain Bryte's home is in Pasadena, Calif. Before his appointment to the U.S. Military Academy, he attended the University of California, at Los Angeles in 1920 and 1921. He received his temporary promotion to the rank of Captain on April 20, 1935, and his permanent appointment on August 1st of that year.

It is with reluctance that his host of friends, both Army and civilian, see him leave San Antonio, and all join in wishing him the best of luck and success.

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TROPHIES AND MEDALS WON BY PISTOL EXPERT

A Kelly Field officer, who is very handy with the pistol, has brought home the bacon so often as to make it appear that he should be well supplied with this item of food which goes along with the eggs.

According to the Kelly Field Correspondent, 1st Lieut. Charles F. Densford, Air Corps, popular Observation Flying Instructor at the Air Corps Advanced Flying School, took time out between classes and went to El Paso, Texas, and literally cleaned up on the 18th Annual State Pistol Matches, which were conducted in that fair city from June 18th to the 22nd, under the auspices of the Texas State Rifle Association.

Lieut. Densford participated as an individual shooter, and while he did not capture the State Pistol Championship he nevertheless walked away with four matches, winning four first places, four second, one third and two fourths. Lieut. Densford bettered his scores of last year in most of the shoots he won. His nemesis of this and previous years, Mr. Charles Ashkins, of the Texas Border Patrol, won the title, although he did not take a single match, his aggregate topping that of Lieut. Densford by four points.

Included in the "spoils" brought home by Lieut. Densford were four trophies, seven silver medals and three bronze medals, which were placed on display at Post Headquarters for all to admire and envy.

(Continued on Page 8).

PERSONNEL CHANGES IN THE CHIEF'S OFFICE

Ten Air Corps officers and one Medical Corps officer, who are nearing the completion of their tour of duty in the Office of the Chief of the Air Corps, Washington, D.C., are slated for duty at the stations indicated, viz:

Lieut. Colonel M.C. Grow, Medical Corps, Chief, Medical Section, Personnel Division, to Langley Field, Va.

Lieut. Colonel Robert LeG. Walsh, Chief of the Reserve Division, to duty as student, Army Industrial College.

Lieut. Colonel Gerald E. Brower, Supply Division, to the Army War College for duty as student.

Major Charles P. Prime, of the Training and Operations Division, to Bolling Field, D.C.

Major Alvan C. Kincaid, of the Training and Operations Division, to duty as student at the Command and General Staff School, Fort Leavenworth, Kansas.

Majors Rowland C.W. Blessley, Reserve Division; William B. Souza, Training and Operations Division; James A. Mollison, Personnel Division, and Captain Donald F. Stace, Supply Division, to duty as students at the Air Corps Tactical School, Maxwell Field, Ala.

Major Edward V. Harbeck, Inspection Division, to San Diego, Calif., as Air Corps Technical Supervisor.

Major Morton H. McKinnon, Personnel Division, to duty as student at the Army War College.

Of the Air Corps officers due to report for duty in the Office of the Chief of the Air Corps, Brig. General George H. Brett goes to the Executive Office;

Colonel Henry W. Harms, Major Ennis C. Whitehead and Captain Donald F. Fritch to the Supply Division;

Lieut. Colonel Robert J. Platt, Medical Corps, to the Medical Section, Personnel Division;

Major Warren R. Carter and Captain John F. McBlain to the Training and Operations Division;

Major Barney M. Giles to the Inspection Division;

Major Austin W. Martenstein to the Finance Division;

Major Omer O. Niergarth and Captain Donald R. Goodrich to the Personnel Division;

Major Robert M. Webster to the Plans Section;

Captain Cecil E. Henry to the Reserve Division.

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LIEUT. DENSFORD (From Page 7)

Lieut. Densford's outstanding pistol shooting dates back from the days he was attending the Air Corps Advanced Flying School at Kelly Field, when in 1932 he won the State Championship. While serving in the Hawaiian Department he competed in two Territorial championship shoots, capturing first place both times. He also participated in the Texas State Matches in 1936 and 1937, winning second place - as he did this year. Patrolman Ashkins nosed him out of first place at each of those shoots, as he did this year. The winner of this year's matches, which were figured on an aggregate basis, scored 1133 in five matches, against 1129 for Lieut. Densford, and out of a possible 1200.

The Kelly Field participant used .22, .38 and .45 caliber pistols in these matches. He is a member of the Liberty Pistol and Rifle Club (San Antonio) but did not compete under its auspices this year, as there were insufficient numbers of its membership to make up a team.

All the members of Kelly Field - and the shooting fraternity especially - were immensely pleased with the achievements of their gun totin' flying instructor, and wish him continued success in many pistol shoots to come in the future, with the conviction that he will always bring home the bacon.

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LOWRY FIELD HOLDS OPEN HOUSE

More than 12,000 residents of Denver and vicinity took advantage of Lowry Field's first "open house" to see how the Air Corps lives and to look at the equipment used in teaching students the subjects of Armament and Photography.

Starting at 1:30 p.m., Sunday, June 27th, a steady line of cars began pouring into the post, and when the closing hour arrived at 5:30 p.m., it was hard for most of those present to break away from the thousands of interesting items on display.

Several mothers were seen to point out to their sons the orderly manner in which the soldiers make their beds and place their shoes beneath them.

Great interest was shown in the work of the Armament Department. The collection of machine guns, dummy bombs, bomb racks, machine gun synchronization apparatus and gun cameras kept the huge throng constantly asking questions of the military personnel on duty.

Equal interest was manifested in the Photographic Department, where dozens of huge and expensive cameras were on display. Many candid camera enthusiasts kept the photo students and instructors on their toes answering questions.

Lieut. Colonel Junius W. Jones was greatly impressed by the huge crowd, and indications were that future visiting days may be designated.

Colonel Jacob H. Rudolph, Air Corps, reported for duty and assumed command of Lowry Field, Denver, Colo., on July 1st, relieving Lieut. Colonel Junius W. Jones, assigned to duty in Washington, D.C.

LIEUT. GOWEN LOSES LIFE IN CRASH

The crash of a B-10B Bomber on July 11, 1938, at Paitilla Point, on the outskirts of Panama City, Republic of Panama, resulted in the death of 1st Lieut. Paul R. Gowen, Air Corps. His two companions in the plane, 1st Lieut. Kenneth R. Crosher and Private Gareth H. Bundy, Air Corps, survived the crash, the former sustaining minor burns and the latter major burns.

A graduate of the United States Military Academy, West Point, N.Y., June 13, 1933, the deceased officer was commissioned a second lieutenant in the Corps of Engineers and assigned to the Air Corps for flying training. Graduating from the Primary Flying School, Randolph Field, Texas, June 30, 1934, he specialized in Attack Aviation at the Advanced Flying School, Kelly Field, Texas, and graduated therefrom October 13, 1934, on which date he was rated as "Airplane Pilot." He was then assigned to duty with the 20th Pursuit Group at Barksdale Field, Shreveport, La. In January, 1937, he was assigned to duty in the Panama Canal Department.

Lieut. Gowen was 29 years of age and a native of the State of Idaho.

The Air Corps sends its deep sympathy to the bereaved relatives of this promising young officer who lost his life in the service.

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DEATH OF LIEUT. COLONEL ERNEST CLARK

The death on June 30, 1938, at the Marine Hospital, Baltimore, Md., of Lieut. Colonel Ernest Clark, removed from the ranks of the Air Corps an officer of superior qualifications and one who was held in high esteem by his fellow officers.

Funeral services were held at the chapel at Fort Myer, Va., on the morning of July 5th, and interment was in the Arlington Cemetery. The honorary pallbearers were Lieut. Colonels M.F. Davis, Vincent B. Dixon, Rosenham Beam, W.E. Farthing, Ira C. Eaker and Major David G. Lingle.

A native of Terre Haute, Ind., where he was born on December 13, 1884, Col. Clark for a period of three years from March 15, 1899, served as an enlisted man in the 10th U.S. Infantry, and was discharged as a sergeant. Reenlisting on July 31, 1902, he was assigned to Company G, 20th Infantry, and he served therewith until discharged by purchase, as a corporal, August 24, 1903. While with the Infantry, he saw service in Cuba.

Beginning in 1907, Colonel Clark, for a period of ten years, served with the Indiana National Guard. He was commissioned a second lieutenant on February 24, 1908, and was promoted to first lieutenant on December 30, 1914. From July 15, 1916, to February 1, 1917, he was aide-de-camp to Brigadier General E.M. Lewis, the Commanding Officer of the Indiana Brigade, at which time it was in the Federal service on the Mexican border.

In March, 1917, Colonel Clark was authorized by the Militia Bureau in Washington to take the course in aviation at the Signal Corps Aviation School at San Diego, Calif. He completed the course and qualified for the rating of Junior Military Aviator in July, 1917.

Appointed a temporary 1st Lieutenant, Signal Corps, U.S. Army, on November 14, 1917, he was officially rated a Junior Military Aviator on the same date. He continued on duty at San Diego, serving as Assistant to the Officer in Charge of Flying until his transfer to March Field, Calif., for duty as Officer in Charge of Flying. While on duty at San Diego, he established the auxiliary flying field at Otay Mesa, then known as "East Field," and had direct charge, being responsible for all flying at this field.

At March Field, Colonel Clark not only established the course of flying instruction thereat, but made an enviable record in having given 28,000 hours of instruction to flying cadets without a fatality.

In March, 1919, Colonel Clark assumed the additional duty of commanding officer of the Flying School Detachment, and for a number of months he also served as Executive Officer of the field. During the summer months of 1920 he was in charge of Forest Fire Patrol operations.

Transferred to Chanute Field, Rantoul, Ill., in April, 1921, Colonel Clark was stationed at this field until October 6, 1927. During this period, his duties were varied in character. He commanded the Air Service Technical School Detachment, was Executive Officer of the field, Intelligence Officer, Provost Marshal, Post Operations Officer, Engineering Officer and Meteorological Officer. For a number of years he commanded the 15th Observation Squadron.

At his next station, Langley Field, Va., Colonel Clark was Post and Wing Operations Officer, Post Airways Officer, and Post Information Officer until July, 1928. He was then assigned to the command of the 59th Service Squadron, 2nd Bombardment Group. For several months he was in temporary command of the 2nd Bombardment Group.

Transferred to Bolling Field, D.C., in February, 1929, he was placed in command of the Air Corps Detachment thereat. For brief periods he served as Executive Officer and Commanding Officer of the Field.

(Continued on Page 12).

11TH BOMBARDMENT SQUADRON CELEBRATES

Observance of the 21st anniversary of the 11th Bombardment Squadron, stationed at Hamilton Field, Calif., was celebrated on June 25th with a picnic at McNear's Beach, a few miles from San Rafael. All types of recreation were available to the men of the "Eleventh," their friends and guests. A public address system was taken along for dancing in the evening after the soldiers made the most of swimming and games in the far famed California sun.

The 11th Bombardment Squadron was organized at Kelly Field, Texas, on June 26th, 1917, from personnel derived from Company "B," Provisional Aviation School, Signal Corps. After intensive training both at Kelly Field and Scott Field, the Squadron was ordered to England December 18, 1917, on H.M.S. "Orduna." Disembarking at Greenbrock, Scotland, December 31, 1917, the Squadron arrived at Winchester, England, January 1, 1918.

At Maulan, shortly after leaving their first front line station of Amanty, July, 1918, the Squadron Insignia was adopted. Conceived in the mud of the front lines, "Jiggs" was supposed to typify the long suffering and patient spirit of the Eleventh, as it met with many disappointments in its effort to get into action.

Privates Hal Green and Lawrence Larson conceived the idea of "Jiggs" for the Squadron Insignia, and it was drawn by Sergeant Clement Jenkins.

The unofficial record shows that "Jiggs" accompanied the Squadron on 32 bombing raids, engaged in 17 combats and has official confirmation of 13 victories.

A few years ago, Mr. George McManus, the famous creator of the Maggie and Jiggs cartoon, obligingly drew the cartoon for the Eleventh, thus perfecting and adding to the attractive insignia a feeling that Mr. McManus alone can put into his cartoons.

General Orders No. 5, War Department, 1926, awarded four battle credits to the Squadron at Lorraine, St. Mihiel, and the Meuse-Argonne. Thirteen victories of the Squadron received official confirmation. During the 32 bombing raids and 17 combats in which it participated, the Squadron suffered 20 casualties, consisting of 10 killed, 8 taken prisoner, one wounded and one missing in action.

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Master Sergeant Charley J. Osburn, Air Corps, stationed at the Advanced Flying School, Kelly Field, Texas, is placed on the retired list, effective July 31, 1938.

PHOTOGRAPHS OF ERUPTING VOLCANO

Army airmen stationed in the Philippines took a number of interesting photographs of Mt. Mayon, the world's most perfect volcano, in action. After ten years of inactivity, this volcano erupted on June 4th, last, forcing thousands of natives to flee from their homes.

Mt. Mayon, which towers to a height of 8,274 feet and rises straight out of the coastal plain, is located five miles northwest of the city of Legaspi, the capital of the province of Albay on the island of Luzon. It is approximately 210 miles east of the city of Manila. Chiefly noted for being one of the world's most symmetrically conical volcanoes, Mt. Mayon is one of several active volcanoes left in the Philippines. Its activity is limited to smoking and periodical eruptions.

Almost ten years ago, on July 2, 1928, the coast town of Libog, P.I., then having a population of 7,000, and several villages, were virtually destroyed by the lava from this volcano.

In the 1928 volume of the Air Corps News Letter, the following item was found under notes from Nichols Field and under the caption "5th Photo Section":

"Lieut. John D. Corkille, pilot, and Lieut. George W. Goddard, photographer, flew to Legaspi and made some interesting photographs of Mayon volcano, which is in eruption at the present time."

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FLYING ACTIVITIES OF 3RD TRANSPORT SQDN.

The pilots of the Third Transport Squadron, San Antonio Air Depot, Duncan Field, Texas, have flown an average of 688 hours each during the past fiscal year.

The eight pilots of the Squadron, 1st Lieuts. M.H. Warren (Commanding), L.P. Kleinoeder, C.B. Collier, 2nd Lieuts. T.K. Dorsett, P.S. Blair, Master Sergeant C.P. Smith, Technical Sergeant P.B. Jackson and Staff Sergeant F.O. Tyler, have flown 5,511 hours without even a minor accident. Technical Sergeant Jackson, with a total of 785 hours, had the highest amount of flying time.

The News Letter Correspondent states: "This is an exceptionally well qualified group, having an average of 3,070 hours' total time per pilot. Since the first C-33 transport was received 20 months ago, these airplanes have been flown over a half million miles without even a minor accident and with only one forced landing, on which occasion the airplane, fully loaded, was flown on one engine to Austin, Texas, and landed without mishap. This forced landing was due to a material failure and was not caused by

(Continued on Page 12).

AIR-TRACK INSTRUMENT LANDING SYSTEM

The improved Air-Track Instrument Landing System, manufactured by the Washington Institute of Technology, was inspected and flight tested at Pittsburgh, Pa., by a representative of the Air Corps Materiel Division, Wright Field, Ohio. In his report, it was stated that this landing system as now installed at the Allegheny County Airport, Pittsburgh, Pa., presents a system much improved over that tested by representatives of the Materiel Division at College Park, Md., in June and July, 1936, and provides information which would indicate that the straight line glide path will be a desirable as well as an essential feature of any future instrument landing system.

This straight line glide path is, of course, under development by several agencies, including the Army, at the present time. The glide path of the Air-Track Instrument Landing System had only a slight curvature, and the straightening out of this path made it possible for it to be followed much more accurately and with greater ease than any previously tested.

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OFFICERS ASSIGNED TO RANDOLPH FIELD

The following-named Air Corps officers were relieved from further assignment and duty at the stations indicated and assigned to duty at the Air Corps Training Center at Randolph Field, Texas:

Captain James F. Phillips, from Edgewood Arsenal, Md.

Captain Elmer T. Rundquist, from Fort Riley, Kansas.

1st Lieut. William C. Dolan, from Brooks Field, Texas.

1st Lieuts. Richard E. Ellsworth and Richard H. Wise, from Mitchel Field, N.Y.

1st Lieuts. William J. Holzapfel, Jr., Dyke F. Meyer and 2nd Lieut. Wilbur W. Aring, from Maxwell Field, Ala.

1st Lieuts. Kurt M. Landon and Earl F. Signer, from Scott Field, Ill.

1st Lieut. John W. Persons, from Bolling Field, D.C.

1st Lieut. Lloyd H. Tull, from Aberdeen Proving Ground, Md.

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Lieut. Colonel Harold M. McClelland, Air Corps, has been detailed as a member of the General Staff Corps and assigned to the War Department General Staff.

Effective August 3, 1928, he is relieved from assignment and duty at the General Headquarters Air Force, Langley Field, Va., and assigned to duty in the office of the Chief of Staff, Washington, D.C.

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Captain Francis B. Valentine, Air Corps, was promoted to Major (temporary), with rank from June 27, 1938.

PERMANENT REMINDERS OF A WORLD WAR HERO

The various medals and engraved citations, once the treasured possessions of the late Lieut. Colonel William Thaw, Air Service, one of America's outstanding heroes of the World War, will be on display sometime in the future at the Army Aeronautical Museum at Wright Field. Dayton, Ohio. These mementoes were presented to the Air Corps by Mrs. Benjamin Thaw, of Washington, D.C., widow of the brother of Colonel Thaw. At their permanent resting place at Wright Field, they will serve as a reminder to future generations of American youth of the gallant airmen who gave their all for the defense of democracy during the World War.

At the age of 40, Colonel Thaw died in Pittsburgh, Pa., on April 22, 1934. The airman, whose feats in aerial combat as commander of the Lafayette Escadrille made illuminating chapters in the history of war-time aviation, succumbed to pneumonia.

As an early aviation enthusiast, Colonel Thaw devoted much of his time to its development before the outbreak of the war. During that great conflict he came to be recognized as one of the outstanding figures in the air operations in the war-torn area, and he became the leader of the heroic little band of American flyers who plunged into the conflict almost at its beginning as soldiers of France, and who later became identified by the now famous name of the "Lafayette Escadrille."

Story after story of German planes brought down, and of heroic battles in the undeveloped war-time planes, centered the attention of the world on the Lafayette Escadrille. Colonel Thaw was frequently cited for heroic action, and before the war had been in progress two years he was awarded the French government's Military Cross, the highest honor which can be attained by a French soldier.

Long before the outbreak of the war, Colonel Thaw and his brother, Alexander Blair Thaw, were conducting experiments on aircraft devices, and the latter developed an automatic stabilizer. In 1914, the two brothers went to France in an endeavor to interest the French government in that device. Shortly thereafter, the war broke out, and Colonel Thaw remained in France to enlist with 121 other Americans in a volunteer foreign legion organized when the hostilities began. He entered as a private and while still holding that rank was transferred in December, 1914, to the flying corps. He served with various squadrons on the front lines and, during the course of his service with the French air force, he was promoted at various times and reached the rank of 1st Lieutenant on May 22, 1916.

On October 17, 1917, he was given command of the Lafayette Escadrille, and in the following month he was transferred to the American Air Service. He was commissioned a Major on November 7, 1917, and given the command of the 103rd Pursuit Squadron on January 10, 1918. On August 1, 1918, he was placed in command of the 3rd Pursuit Group, and on October 15, 1918, he was promoted to Lieutenant Colonel.

While with the U.S. Air Service overseas, Colonel Thaw was on active flying duty in the various offensives in which the American Army was engaged. He returned to the United States in December, 1918, and commanded Rockwell Field, Calif., until July, 1919, when he was honorably discharged from the service.

Following his return to civil life, Colonel Thaw entered the insurance business in Pittsburgh, but maintained his interest in aviation and made frequent flights. He first learned to fly at the Curtiss School of Aviation at Hammondsport, N.Y., June to August, 1913. He flew from Newport, via New Haven, to New York, with another airman, Steve Macgordon, flying under the East River bridges and around the Statue of Liberty. This was in October, 1913. In December of that year he flew a Curtiss flying boat in Florida. Early the next year he flew a Curtiss hydroplane at various localities on the Mediterranean Sea.

The medals, engraved citations, etc., turned over by Mrs. Thaw to the Air Corps, are enumerated below, as follows:

1. Citation for the Distinguished Service Cross, signed by General John J. Pershing, with the decoration affixed to the citation.

2. Citation, dated April 19, 1919, and signed by General Pershing, commending Lieut. Colonel Thaw for exceptionally meritorious and conspicuous service as Commanding Officer of the 103rd Pursuit Squadron.

3. Citation for the A La'Ordre de L'Armee, to which is affixed the Croix de Guerre decoration, with four palms pinned on the ribbon.

4. Citation for the Ordre National de La Legion D'Honneur, dated April 9, 1919, conferred by the President of France on Lieut. Colonel Thaw. The decoration is affixed to the certificate.

5. A history of the 3rd Pursuit Group, 1st Pursuit Wing, 1st Army, comprising eight single-spaced typewritten pages, mounted on heavy cardboard.

6. Large sheet of parchment paper, on the bottom half of which are inscribed the names of pilots of the 28th, 93rd, 103rd and 213th Squadrons, credited with bringing down enemy planes, and the number thereof. At the top of this sheet, painted in colors, an eagle is perched on the top of a scroll wherein there is inscribed the words "Roll of Honor of the 3rd Pursuit Group." Underneath this, painted in appropriate colors, are the insignia of the squadrons above mentioned.

7. A large frame, on the left appearing a letter to Lieut. Colonel Thaw, dated Paris, France, January 14, 1918, written by Mr. Lawrence V. Benet, Chairman of the Foreign Service Committee, Aero Club of America, and stating that in recognition of the splendid service Colonel Thaw rendered as founder of the Franco-American Flying Corps, there is bestowed upon him the Special War Medal of the Aero Club of America. This medal is fastened at the top center in the frame. At the right is an engraved certificate of the Ligue Aeronautique de France, dated June 14, 1917, expressing praise and gratitude to Colonel Thaw, of the Lafayette Escadrille, and awarding him the Medal of the League. This medal, which is more in the form of a plaque, is fastened at the bottom center of the frame.

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COLONEL CLARK (From Page 9).

In June, 1931, Colonel Clark arrived in the Hawaiian Department and assumed command of the 18th Pursuit Group at Wheeler Field, Schofield Barracks, T.H. He was repeatedly commended by his superior officers for the excellent manner in which he administered his command.

After over four years of service in Hawaii, Colonel Clark, in November, 1935, reported for duty with the 1st Pursuit Group at Selfridge Field, Mt. Clemens, Mich. On March 19, 1937, he began his duties as Air Officer of the 3rd Corps Area at Baltimore, Md.

Commissioned a Captain in the Air Corps, Regular Army, on September 23, 1920, he was promoted to Major on March 1, 1931, and to Lieut. Colonel (temporary), March 12, 1935.

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THIRD TRANSPORT SQUADRON (From Page 10).

faulty maintenance. Therefore, although the pilots have hung up an excellent record, too much praise cannot be given the enlisted personnel who have made this possible through excellent maintenance.

During the past year, approximately one and one-half million pounds of freight was moved in and out of the San Antonio Depot by air.

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War Department Special Orders announced the temporary appointment of Captain Hobart R. Yeager, Air Corps, to the grade of Major, with rank from July 1, 1938.

Major Arthur G. Hamilton, Brooks Field, Texas, was transferred to Marshall Field, Kans., for duty with 1st Observation Sqd.

WORLD FLIGHT A MATTER OF HOURS

Years ago, when Jules Verne, the famous novelist, wrote his book "A Tour of the World in Eighty Days," it is safe to assume that little did he dream that his fanciful vision of fast travel around the globe would actually be reduced to a matter of hours.

Through his remarkable achievement of encircling the globe and covering a distance of 14,824 miles in 91¼ hours, Howard Hughes, America's No. 1 Sportsman Pilot, demonstrated once more the supremacy of the United States in aviation.

Sunday evening, July 10th, at 6:20 p.m., E.S.T., he took off from Floyd Bennett Field, N.Y., and Thursday afternoon, July 14th, the wheels of his special Lockheed monoplane rolled to a stop at this same airport at 1:34 o'clock, E.S.T.

And in the meantime! Monday, at 10:55 a.m., E.S.T., he arrived in Paris, after crossing the turbulent Atlantic and covering a distance of 3,641 miles in 16 hours and 35 minutes. At 7:24 p.m. that day, after refueling and repairs, he took off for Moscow, where he arrived on Tuesday morning at 3:13, covering 1,675 miles in 7 hours and 49 minutes.

Two hours and 12 minutes later, after refueling, the flight was resumed, and Omsk, U.S.S.R., was reached at 1:00 p.m., the distance of 1,380 miles being covered in 7 hours and 35 minutes.

At 5:37 p.m., the American airman took off on the next leg of their flight to Yakutsk, Siberia, a distance of 2,177 miles, and they arrived there at 4:08 a.m., Wednesday, after flying 10 hours and 31 minutes.

Less than three hours later, at 7:01 a.m., the monoplane was again in the air and headed toward Fairbanks, Alaska, a distance of 2,456 miles. This hazardous "hop" was covered in 12 hours and 17 minutes. They arrived at 7:18 p.m.

The airmen stopped in Fairbanks only an hour and 18 minutes, taking off for Minneapolis, Minn., at 8:36 p.m., and landing at the Wold-Chamberlain Airport at 8:38 a.m., Thursday, after a 2,441-mile flight, which was covered in 12 hours and one minute. Just 33 minutes later, at 9:11 a.m., the take-off was made on the final 1,054-mile lap to the Floyd Bennett Airport.

All of the time given above is Eastern Standard.

Major General Oscar Westover, Chief of the Air Corps, made a special flight to New York to extend in person his hearty congratulations to the globe-encircling airmen for their epochal feat. And, to make his feelings in the matter of record, he wired Mr. Hughes as follows:

"Heartiest congratulations to you from me personally and from the Air Corps as a whole on the successful completion of your epoch making world flight. You are your crew have demonstrated to the entire world the preeminence of the United States in aeronautics."

Brigadier General Henry H. Arnold, Assistant Chief of the Air Corps, wired Mr. Hughes, as follows:

"Congratulations on successful completion of your epoch making world flight. You and your crew have certainly shown that the United States leads the way in aeronautics."

As one around-the-world flyer to another, Major Lowell H. Smith, Air Corps, Chief of the Inspection Division, Office of the Chief of the Air Corps, who was the leader of the Air Corps Around-the-World Flight in 1924, wired Mr. Hughes, as follows:

"Participants in the Army Air Corps World Flight nineteen twenty four extend their most hearty congratulations to you and each member of your flight for your splendid achievement and the remarkable record established."

Associated with Mr. Hughes on this flight was 1st Lieut. Thomas L. Thurlow, Air Corps, who is stationed at the Air Corps Materiel Division at Wright Field, Dayton, Ohio. Quoting Hughes' story of the flight in the press: "I had two of the best aerial navigators who ever lived. Lieut. Thomas Thurlow studied astronomy in college and is tremendously enterprising. He invented the best type of sextant, which we used, and perfected our drift indicator.

"Harry Connor is a fine celestial navigator, who learned his business in the merchant marine. He and Thurlow spelled each other. One would navigate at the take-off and the other would guide us into landing, and then they'd change off midway of the next leg."

According to Hughes' story, it appears that on the take-off from Floyd Bennett Field when he had taxied to the end of the runway he thought the runway was too short for a take-off with that load, so he taxied out beyond the end of the runway (concrete) on the grass. The tail wheel hit a hole in the grass. "I felt the jar," he said. "What had happened - although we didn't know it then - was that the bump had ruptured the fitting of the tail wheel to the bulkhead of the ship.

"A French mechanic nosing around under the ship found the trouble right away. The biggest danger was that the break was right up close to the elevator controls and interfered with them. We and the French, who were grand to us, took a look. They threw up their hands and said: 'C'est fini' - it's the end. But not Ed Lund.

"He found a United States Army mechanic named cook - I don't know what he was doing around Paris - and he and Cook fixed things up with a log of angle irons. I'd thought maybe we could do it with a 2 by 4, or something, but their job was swell." Ed Lund, a member of

Hughes' crew, is a man who has had considerable experience with engines. The Army mechanic referred to by Hughes is Staff Sergeant John J. Cook, Air Corps, who is on detached service in Paris and mechanic for Captain John M. Sterling, Air Corps, who is the Assistant Military Attache for Air at the American Embassy in Paris. Sergeant Cook was formerly stationed at Bolling Field, D.C., and is a resident of Washington.

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ASSIGNMENTS OF NEWLY APPOINTED OFFICERS

The 19 newly appointed Air Corps officers, who held commissions in the Air Reserve, and who were commissioned under the provisions of the Acts of Congress of August 30, 1935, and April 13, 1938, as second lieutenants in the Air Corps, Regular Army, with rank from July 1, 1938, as referred to in the previous issue of the Air Corps News Letter, have been assigned to duty at the Air Corps stations indicated:

Howard Monroe Means to Fort Knox, Ky.

Leland Gordon Fiegel and McClellan Ferguson Stunkard, Jr., to Mitchel Field, L.I., New York.

Thomas Danville Brown to Fort Lewis, Washington.

Harry Philip Leber, Jr., to Hickam Field, Territory of Hawaii.

James Warren Phelps, Jr., to Selfridge Field, Mich.

John Richardson Alison, Steele Roy Patterson, Thornton Kise Myers and Henry Gordon Barrett to Langley Field, Va.

Michael Joseph Coffield, Waymond Austin Davis and Wallace Embry Nau to March Field, Calif.

Lloyd Henry Dalton, John Ray Kilgore and Edward Shepard Chickering to Randolph Field, Texas.

Henley Vedder Bastin, Jr., and Robert Carl Orth to Scott Field, Ill.

Guy Leonard Hudson, Jr., to Moffett Field, Calif.

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HAMILTON FIELD GIVES RELEASE TO B-10's

According to the Hamilton Field Correspondent, the personnel at that field recently paid farewell to the last of the old Martin B-10 Bombers. He states:

"These planes at one time were supposed to be one of the most advanced type of two-motored bombers in our Air Force, but are now on the down hill grade and in a few more years will be entirely obsolete.

Two of these B-10's - the last two at Hamilton Field - were transferred, one to Fort Lewis, Washington, and one to Moffett Field, Calif., where they will be used as training ships for Reserve officers and the National Guard.

The Martin B-10 bomber has been slowly replaced by the more up-to-date Douglas B-18, which is also a two-motored bomber, but with a carrying capacity of sixteen men over the capacity of three in the old B-10's."

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TRAVELING EXAMINING BOARD INTERVIEWS APPLICANTS FOR REGULAR APPOINTMENT

Incident to the examination of officers being conducted at Hamilton Field, Calif., for commissions in the Air Corps, Regular Army, was the flight which took the members of the examining board to Barksdale Field, Shreveport, La.

The Air Corps members of the board, Lieut. Colonel C.W. Russell, Majors C.P. Talbot and T.V. Foster, proceeded in a Douglas twin-motored B-18 airplane to March Field, Calif., and from there continued on to Barksdale Field. Lieut. Troy W. Crawford acted as observer on the flight. The other members of the board are Major W.F. DeWitt and Captain P.C. Gilliland, Medical Corps.

Forty-one applicants, all of whom are graduates of the Air Corps Training Center, have been interviewed by the board at Hamilton Field. Many of these young men are at present on active duty either at Hamilton Field or other Air Corps stations, while others of them are engaged in commercial aviation and other business pursuits.

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MAJOR HARPER TO LEAVE CHANUTE FIELD

The Chanute Field Correspondent reports that on August 1st, Major Earle G. Harper, Air Corps, will leave that field for a month's vacation in the Sierra Nevada Mountains, upon the termination of which he will report for duty at Moffett Field, Calif. He then adds:

"Major Harper came to the Technical School from March Field in July, 1932. Two years later he was appointed the Assistant Commandant, Air Corps Technical School, and served as such for almost four years.

Since Major Harper's arrival six years ago his record has been one of loyal and consistently hard work with but one end in view - the improvement of the school, its courses of instruction, and quality of its graduates. Only one who has watched the progress of the school in the past six years can fully appreciate the effect of Major Harper's efforts.

As Squadron Commander of Headquarters and Headquarters Squadron - an organization composed largely of students and numbering on an average of five hundred men - he has kept in very close touch with the men. He knew personally the best students and the worst, their troubles and their problems. Few leaders have his ability to gain the same affection and respect of their men while holding them to the strictest discipline."

AIR CORPS

NEWS LETTER



MT. MAYON, P.I. IN ERUPTION

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VOL. XXI AIR CORPS NEWS LETTER NO. 15.

Information Division
Air Corps

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The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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OPERATION OF CARBURETOR MIXTURE CONTROLS

By a Materiel Division Engineer

Apparently no other one thing causes more trouble in the mind of the average pilot than the operation of the mixture control. Probably no other thing so contributes to the high cost of maintenance at overhaul as the improper use of the mixture control. This is especially true of air-cooled engines of high output. Every bit of distance stretched on cross-country or every penny saved on gas is paid for by dollars in abuse to the engine. And this engine, as a result, may let you down before you get to your destination or let your fellow officer down tomorrow or next week. It is hoped to have this control eventually automatic and fool-proof; in the meantime the Air Corps News Letter is taken as a medium to summarize information now being gathered for formal publication at a later date.

1. As an introduction, a thorough study of all available information on "Operating and Flight Instructions" for your particular airplane is always in order. The engine you fly today doesn't respond as the engine you flew yesterday, a year ago, or certainly not ten years ago. Be conservative. Stay on the rich side if you are manually controlling the mixture or, if not, give the automatic control the opportunity to function properly.

2. Manual Settings. - The following expressions are applicable to manual adjustment of mixture control with a propeller installed that can be locked in a fixed-pitch position. Given a constant speed propeller of the type that cannot be locked in a fixed-pitch position, and the extreme pitch positions of which result in engine speeds outside the normal operating range in flight, and the use of an instrument measuring the fuel-air ratio for manual adjustment of the mixture control is necessitated.

a. "Full Rich" is the setting of the mixture control lever in the position giving maximum fuel flow.

b. "Best Power" (sometimes termed "Maximum Power") is the setting of the mixture control lever which, with a given fixed throttle setting, results in the maximum engine r.p.m. at the leanest fuel flow; that is, further leaning of the mixture would cause a decrease in engine r.p.m.

(1) "Rich Best Power" is the setting of the mixture control lever which, with a given fixed throttle setting, results in the maximum engine r.p.m. at the richest fuel flow.

c. "Smooth Operation." To obtain the setting for "Smooth Operation" the setting for "Best Power" is obtained and the mixture enriched until engine speed drops from 20 to 30 r.p.m.

d. "Maximum Economy" is obtained by adjusting to "Best Power" and then leaning to obtain a decrease of 40 to 50 r.p.m.

3. Automatic Mixture Controls. - The following types of automatic mixture controls are now in service. Except as specified in Engine Operation Instructions the manual adjustment of carburetors equipped with automatic mixture controls is not required. But when so required, adjustment will be as outlined in Paragraph 2, above.

a. One Position Automatic (Bendix). - This type of control automatically controls the mixture, including changes due to various altitudes and temperatures, without regard to throttle setting. It does not in any way control the power output of the engine. Within the effective operating range, and with the mixture control set in the "Automatic" position, the necessity for manual mixture control is obviated. In the event the automatic mixture control is damaged or for any other reason does not perform properly, the mixture control may be operated manually as with a conventional type carburetor by shifting the carburetor mixture control lever from the "Automatic" position to the desired manual position. This type of control is designed to function at all power outputs up to a standard altitude of 25,000 feet.

b. Two Position Automatic (Bendix).- This type has the following control positions: "Manual," "Automatic Rich," and

"Automatic Lean." In the "Manual" position the mixture is adjusted manually as with a conventional type carburetor. In the "Automatic Rich" position, the mixture is automatically adjusted for safe engine operation up to normal rated power, manifold pressure, and speed. The "Automatic Lean" position will be used only for manifold pressures and speeds below those specified for "Maximum Cruising," and only with the specified grade of fuel. For operation at "Maximum Cruising" power and above, it is imperative that the mixture control be placed in the "Automatic Rich" position or adjusted manually to give the proper mixture. Failure to comply with this procedure is apt to result in serious damage to the engine. With this type of control, take-off will normally be made with the mixture control in the "Full Rich Manual" position except at altitudes above 3500 feet, for which the "Automatic Rich" position may be used.

c. Power Control Type (Pratt & Whitney). - This type has the following control positions: "Emergency" and "Mid" or "Cruising" position. In the "Emergency" position there is no automatic control of either mixture or power, and during operation in this position care must be exercised to avoid excessive manifold pressures and the mixture must be adjusted manually as with a conventional carburetor. In the "Mid" and "Cruising" positions, the power is controlled with the throttle wide open by means of an automatic valve in the air intake in front of the carburetor. This regulation of power is obtained up to the maximum altitude at which the engine can maintain the power for which the regulator is adjusted. Automatic mixture control is also obtained up to this altitude.

At higher altitudes the mixture will grow richer as the power decreases, and therefore to obtain maximum performance and economy the mixture must be leaned manually. Within the range of this type of control, when the control is set in the "Mid" or "Cruising" position and the propeller set for cruising r.p.m., the manifold pressure will be limited to a definite value with the engine throttle full open. If a lower cruising power condition is desired, it may be obtained by leaving the engine throttle full open and reducing the propeller r.p.m. by means of the propeller control. In reducing the propeller r.p.m., the manifold pressure will be automatically reduced slightly. The lower cruising power condition may also be obtained by having the propeller r.p.m. fixed and closing the engine throttle manually. The former method is more satisfactory and efficient. If the latter method is used, the cruising fuel consumption will be somewhat higher.

4. Caution. When operating an engine with the mixture control in the manual lean position at high altitudes, it is extremely important that the mixture setting be enriched during descent, as the normal change in mixture due to change in altitude only may prove dangerous to the proper functioning of the engine. When the airplane is leveled off at lower altitudes, the mixture control should be readjusted for the proper operating conditions then in effect.

5. Adjustment for High Altitude Take-Off. While present instructions generally specify "Full Rich" adjustment of the mixture control for take-off, the operation of some engines not equipped with automatic mixture controls is unsatisfactory if the take-off is at more than 3500 feet above sea level with the mixture control in the "Full Rich" position. The present fuel-air ratio indicators, moreover, are not sufficiently rapid and sensitive to permit adjustment of the mixture during run-up or take-off. Adjustment of the mixture controls for take-off above 3500 feet will therefore be made as follows:

a. Engines equipped with propellers that can be locked in a fixed position should be run-up as near take-off manifold pressure and r.p.m. as possible and the mixture leaned only enough to give an increase in speed of 50 to 75 r.p.m. This setting will be the leanest which should be used for take-off.

b. The mixture control of engines equipped with constant speed propellers whose pitch cannot be fixed cannot be properly adjusted on the ground. Prior to landing airplanes so equipped, they should be flown at the approximate altitude of the field from which take-off is contemplated, at take-off r.p.m., and manifold pressure. The mixture control should be leaned barely enough to eliminate rough operation of the engine, or adjusted for the proper fuel-air ratio indicator reading and this setting marked on the mixture control quadrant for use in subsequent take-offs from this field.

c. Engines equipped with automatic mixture controls should be set as follows for take-off above 3500 feet:

(1) The one-position automatic type will be set in "Automatic" or adjusted manually as described above.

(2) The two-position automatic type will be placed in "Automatic Rich" or adjusted manually as described above.

(3) The power control type will be placed in "Emergency" position and adjusted manually as described above.

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Lieut. Colonel George E. Stratemeyer, Air Corps, Commanding Officer of the 7th Bombardment Group, Hamilton Field, Calif., left that station July 30th for Washington, D.C. He is slated to attend the next course at the Army War College.

OBSERVATION SQUADRON OPERATIONS IN CAVALRY DIVISION MANEUVERS
By the Brooks Field Correspondent

The 22nd Observation Squadron (Corps and Army), stationed at Brooks Field, Texas, is one organization which is well prepared to cooperate with ground forces in war. This organization furnished the Air Observation for the Proposed Infantry Division Maneuvers, (so-called "Streamlined Division Maneuvers"). It also was detailed to furnish the Air Observation for the recent Proposed Cavalry Division Maneuvers. The 22nd Squadron flew over 700 airplane hours on the P C D Maneuvers in a month's time.

The work with these modern mechanized forced revealed several points that had not been noted in the older type, slower-moving Divisions.

The first point noted was that it is highly impractical for the Engineers to build air fields close behind a moving Division. This often results in the Observation squadron being based at a distance of 100 miles or more behind the friendly forces.

It became apparent that Observation squadrons operating with forces having exposed flanks must be based far to the rear to avoid attack by enemy mechanized forces. In fact, in one free maneuver, the Air Officer of the White forces remained behind the friendly Advance with the Air Ground Set, receiving and transmitting to G-2 on another set. He believed he was safe from attack due to a high mountain between him and an attack from flank on rear. To his surprise, he discovered an enemy combat car coming over the mountain, and barely escaped to a position of safety. In attempting to re-establish communications with G-2, he could get no response. Later, it was learned that the White C P had been surprised and captured.

The majority of the pilots and observers on duty with the 22nd Squadron are recent graduates of the Air Corps Training Center. Their demonstrated ability in locating positions, movements, and activities when the enemy is a skeletonized, represented force, speaks well for the type of training they have received.

In addition to normal daylight Observation and Artillery Missions, many night missions were performed. It was found that columns could be located when moving without lights, both on roads and in open terrain.

Observation missions were performed as much as 200 miles in advance of the friendly forces. Information was relayed back to the main body through the Reconnaissance Car Squadron, which operated 75 to 100 miles in advance of the main body.

In the Proposed Cavalry Division, the Reconnaissance Car Squadron had one car on the same frequency with the Observation Squadron. An accompanying car was on the Reconnaissance Squadron frequency. This arrangement between the two principal Reconnaissance forces resulted in excellent team-work, and was mutually advantageous.

In the Proposed Infantry Division Maneuvers, the Commander used aircraft for controlling marches on parallel roads. Often the columns were as much as 50 miles apart.

During the Proposed Infantry Division and Proposed Cavalry Division Maneuvers, officers from Brooks Field served with the ground forces. Every effort was made not only to give the ground forces the observation they wanted. but to anticipate their needs and to learn from them, and with them, what the future needs will be.

In both of these Maneuvers, the need for longer-range aircraft was forcibly brought to the attention of the air officers participating. Commanders were calling for longer range Reconnaissance in the face of mechanized threats.

The modern Tank and Combat Cars are likened to rabbits by the 22nd Observers. They sit quietly in full view until the Observer is looking at some other part of the terrain, then they disappear. They are very difficult to keep located.

Another point observed in both the Proposed Infantry Division Maneuvers in the Camp Bullis area, and the Proposed Cavalry Division Maneuvers in the Toyahvale area, (north of Marfa), was the readiness with which the present sand-tan-colored khaki showed up from the air. They were easily seen in both instances, while the woolen O.D. shirt could not be seen. Riflemen in firing positions on the ground appeared to the eye as "frog saddles" strewn along the ground.

The mechanics of the 22nd Squadron were kept busy on these Maneuvers. They said 20's and 40's came so fast that if they had been pickets they would have been a picket fence.

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GUNNERY TRAINING FOR 4TH RECON. SQUADRON

The 4th Reconnaissance Squadron, stationed at Luke Field, T.H., returned on July 2nd from Bellows Field, Oahu, after spending two weeks in the gunnery camp thereat. The Squadron was favored with near perfect weather, and only one day was lost due to rain.

Four phases of training were conducted and completed, comprising: pistol shooting; .30 cal. ground gun 1000" range; .30 cal. flexible gun fired at tow targets.

ALBROOK FIELD BOMBER FORCED DOWN

Lieut. Kenneth B. Hobson, Air Corps, and his three enlisted companions, Sgt. Harry Hayes, Privates Richard E. Handy and Uno Gustafson, narrowly escaped serious injury when their B-10 was forced down in the water off Point Mariato, 150 miles from Panama City on the Pacific Coast.

Lieut. Hobson took off from Albrook Field at 8:30 a.m., Saturday, July 2nd, accompanied by Lieut. Stephen B. Mack in another B-10. The two planes were to make a training flight from Albrook Field to David, Republic of Panama, and return. On the return leg of the flight, the two planes became separated in a violent storm. Lieut. Mack broke through the bad weather, but could not contact Lieut. Hobson. After searching as long as his supply of gasoline would allow, Lieut. Mack returned to Albrook and reported the fact that he believed Lieut. Hobson and companions had been forced down.

Four Bombardment planes were immediately sent out for the purpose of locating the missing ship. Shortly after 4:00 p.m., the four men were sighted on the beach at Point Mariato. After dropping water, food, and other necessities, the searching party returned to Albrook Field with the very welcome news that no one had been injured seriously.

Colonel Weir, Commanding Officer of Albrook Field, made arrangements for the men to be picked up by Navy patrol planes from Coco Solo early Sunday morning, having realized that an after dark rescue attempt would be very hazardous, and that no one needed immediate medical attention.

The Navy planes left Coco Solo at 7:45 a.m., July 3rd, and at 9:30 a.m., radioed that they had picked up the four men. At 10:20 a.m., the rescuers landed at Blaboa, where they were met by Medical officers from Albrook Field. Private Gustafson suffered a broken collar bone, the only injury among the four men.

The bomber, a Martin B-10, nosed over when it hit the water, and when sighted by the rescue party was located about 200 yards from the shore, with only one wing tip showing. No attempt will be made to salvage the wrecked plane.

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BRIDE AND GROOM LEAD THE PARADE

The officers and ladies of Albrook Field, Panama Canal Zone, welcomed Lieut. William W. Jones and his bride in true Air Corps fashion. When they attempted to enter unannounced, Lieut. and Mrs. Jones were held at the gate by the guard until the alarm could be given. Phones buzzed, horns honked and planes landed. A specially decorated tug and trailer were produced, and with the newly married couple on the trailer, the long procession began a noisy tour of the post, ending up at the Club, where refreshments and introductions were in order.

Before her marriage in San Antonio on June 10th, Mrs. Jones was Miss Mary Eleanor Cutrer. She is the daughter of Lieut. Colonel Victor Cutrer, U.S.A., Retired, and Mrs. Cutrer.

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TWO BOMBERS FLOWN TO COSTA RICA

Two Martin Bombers, commanded by Lieut. Colonel George E. Lovell, Jr., Air Corps, were recently flown to Costa Rica. Departing from France Field, Panama Canal Zone, at 7:30 a.m., the planes reached San Jose, Costa Rica, two hours and 10 minutes later. The Army airmen returned to France Field the following day.

Colonel Lovell is on duty at the Panama Air Depot.

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TEST OF NAVIGATION INSTALLATION

A B-17 (Flying Fortress) airplane departed from Wright Field, Dayton, Ohio, on June 30, 1938, for Miami, Fla., arriving there at about 6:00 p.m. Shortly after midnight, the airplane took off for Brownsville, Texas, flying direct and arriving about 7:00 a.m., July 1st. The airplane was refueled and departed for New Orleans, La., arriving at about 10:30 a.m. After an overnight stay, the airplane took off for Wright Field, arriving about 1:30 p.m., July 2nd.

The flight was made for the purpose of testing the equipment installation and of conducting further tests on the electric-driven gyro sextant. The gyro stabilized drift meter, Type B-3, was used in conjunction with drift signals over the Gulf of Mexico. Observations of Polaris and companion stars were made to obtain lines of position which resulted in fixes. The Type A-4 computer was employed to reduce the celestial observations. All of the equipment functioned satisfactorily.

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PHOTOGRAPHS OF MT. MAYON VOLCANO

The News Letter Correspondent of the 2nd Observation Squadron, Nichols Field, Rizal, P.I., reports that numerous flights were made to Legaspi during the week of June 6 - 12 to obtain pictures of Mt. Mayon in eruption. Some excellent ones were obtained and printed in the Manila papers. They received much favorable comment.

One of the photographs obtained of the erupting volcano is that shown on the cover of this issue of the News Letter. Messrs. Dunnington and Leap, of the Information Division, collaborated on the production of this cover.

WEST POINT GRADUATES ASSIGNED TO UNDERGO FLYING TRAINING

Recent orders of the War Department assigned to the Air Corps for flying training a total of 113 second lieutenants of the Regular Army who graduated from the United States Military Academy, West Point, N.Y., on June 14, 1938. Constituting 37.6% of the entire graduating class, numbering exactly 300, this is the largest number of West Pointers to choose the Air Corps as their branch of the service since the policy was inaugurated in the year 1922 of assigning West Point graduates to the Air Corps for flying training.

The 113 young officers, above mentioned, are under orders to proceed upon the expiration of their graduation leave to Randolph Field, Texas, and report to the Commanding General of the Air Corps Training Center for duty and flying training.

The following tabulation shows the number of West Point graduates of the June, 1938, class who were commissioned in the various branches of the Army and the number from each of these branches assigned to the Air Corps for flying training, viz:

Branch of Service in which Commissioned		Assigned to Air Corps for flying training	Percentage
Corps of Engineers	24	5	20.8
Signal Corps	15	7	46.6
Cavalry	33	12	36.4
Field Artillery	58	22	37.9
Coast Artillery	38	14	36.8
Infantry	132	53	40.1
Total	300	113	37.6

A year of intensive flying training is ahead of these West Point graduates to whom aviation presents a special appeal, i.e., eight months of primary and basic training at the Primary Flying School at Randolph Field, Texas, and four months of advanced training at the Advanced Flying School at Kelly Field, Texas. Those who succeed in completing the year's course will be awarded the rating of "Airplane Pilot" and will be transferred to the Air Corps, while those failing to make the grade will return to the branch of the Army in which they were originally commissioned upon their graduation from the Military Academy.

It is now 17 years since the policy was inaugurated of assigning West Point graduates to the Air Corps for flying training. During the period from 1922 to 1937, inclusive, 1017 West Pointers were accepted for flying training, of which number 441 graduated from the Advanced Flying School up to and including the year 1936. In addition, approximately 61 members of the 1937 Military Academy graduating class are scheduled to graduate from the Advanced Flying School, Kelly Field, Texas, next October, making the grand total of graduated flyers 502, or slightly more than 49% of the number who commenced training. It would appear from this that practically one-half of the young men who are mentally and physically qualified to undergo the course of flying training at the Air Corps Training Center are able to complete the course successfully.

The following tabulation covering a 16-year period of flying training given West Point graduates may be of interest:

Year	Total No. of Graduates	Assigned to the Air Corps	Pct.	Number graduating from the Advanced Flying School	Pct.
1922	102	16	15.6	8	50.00
1923	261	51	19.5	25	49.21
1924	406	61	15.0	20	32.78
1925	244	42	17.2	9	21.43
1926	152	18	11.8	7	38.88
1927	203	30	14.7	16	53.33
1928	260	77	29.0	53	68.83
1929	297	110	37.0	41	32.27
1930	235	85	36.1	41	48.23
1931	296	92	31.0	43	46.74
1932	258	69	26.7	39	56.52
1933	346	92	26.6	43	46.74
1934	247	60	24.3	30	50.00
1935	277	47	17.0	28	59.57
1936	276	61	22.8	38	62.29
1937	293	106	36.0	61*	57.54
Total	4153	1017	24.5	502	49.36

*Expected to graduate in October, 1938.

The West Point graduates of the June, 1938, Class, who will soon report at Randolph Field to learn the intricacies of piloting military airplanes, are enumerated below, as follows:

Class Standing	Name	Home
	Corps of Engineers	
7	Alexander J. Frolich	San Fernando, Calif.
8	Paul T. Preuss	Seymour, Ind.
22	William S. Crocker, Jr.	Hingham Center, Mass.
23	William B. Kieffer	Jackson Hts, L.I., N.Y.
30	Robert M. Batterson, Jr.	Boonville, Calif.
	Signal Corps	
28	Andrew C. Dapprich	Pittsburgh, Pa.
29	Benj. M. Tarver, Jr.	Lookout Mtn., Tenn.
44	Rolf O. Wulfsberg	St. Paul, Minn.
62	George A. Bosch	Mission Beach, Calif.
72	Albert P. Sights, Jr.	Clinton, Okla.
93	Norman L. Tittle	Wichita Falls, Texas
117	Robert L. Snider	Temple, Me.
	Cavalry	
74	Omar E. Knox	Lyons, Kans.
92	John H. Swenson	Red Owl, S.D.
104	Joseph R. Barker, 2d	Birmingham, Ala.
106	William K. Kincaid	Middleport, Ohio
118	Ashley B. Packard	Douglas, Ariz.
123	William P. Brett	Statesboro, Ga.
134	Ralph B. Praeger	Claflin, Kans.
135	Charles W. Sherburne	Evanston, Ill.
136	Nicholas H. Chavasse	Henderson, N.C.
150	Maurice R. Lemon	Carrizozo, N.M.
206	Robert W. Rulkoetter	St. Louis, Mo.
243	Merrick Bayer	Washington, D.C.
	Field Artillery	
11	Morris F. Taber	Seattle, Wash.
39	William K. Skaer	Huntington Park, Calif.
49	Laurence E. Wernberg	Sea Cliff, L.I., N.Y.

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Field Artillery (Continued)

66	John D. Ryan	Cherokee, Iowa.
77	Alvar B. Sundlin	New Bedford, Mass.
87	Martin L. Webb	Monroe, La.
89	Frank P. Sturdivant	Minter City, Miss.
96	Francis B. Harrison	Lander, Wyo.
113	Douglas C. Polhamus	Berryville, Va.
115	Louis E. Coira	Lock Haven, Pa.
121	Donald W. Saunders	Athens, N.Y.
125	Robert A. Zaiser	Burlington, Iowa
127	John D. Moorman	Idabel, Okla.
137	Henry C. Huglin	Fairfield, Iowa
152	Lorenzo D. Adams	Hortense, Ga.
153	John R. Hopson	Washington, D.C.
155	Robert C. McBride	Wichita, Kans.
167	Samuel L. Barbour, Jr.	Plainfield, N.J.
172	William H. Blanchard	Chelsea, Mass.
185	William A. Sundlof	Wilmette, Ill.
221	Richard A. Broberg	Torrington, Conn.
223	Leland O. Krug	Rochester, N.Y.

Coast Artillery

41	Prescott M. Spicer	Poughkeepsie, N.Y.
50	Glenn P. Anderson, Jr.	Marion, Va.
61	Burton R. Brown	Erie, Pa.
63	Sherwood E. Buckland	Woodhaven, N.Y.
70	Joseph Conigliaro	Bronx, N.Y.
73	George Kappes	Zanesville, Ohio
95	Lloyd E. Johnson, Jr.	Royersford, Pa.
110	Harvey P. Barnard, Jr.	Buffalo, N.Y.
132	John H. Spangler	Briggsdale, Colo.
140	Harry C. Morrison	Ridgefield Park, N.J.
147	John B. Herboth, Jr.	Glen Ellyn, Ill.
154	Virgil L. Zoller	Marion, Ill.
169	Philip R. Hawes	Los Angeles, Calif.
191	Carter E. Duncan	Bloomington, Ill.

Infantry

78	Gregory Hoisington, Jr.	Baltimore, Md.
83	Milton E. Lipps	Salem, Ore.
98	Howard D. Kenzie	Boise, Idaho
100	Edward J. Cichowski	Batavia, N.Y.
101	Bertram C. Harrison	Mount Holly, N.J.
107	Clifford P. Macomber	Fall River, Mass.
112	Arthur J. Smith, Jr.	Detroit, Mich.
148	Richard F. Bromiley	Philadelphia, Pa.
173	Castex P. Conner	Jennings, La.
181	Hugh D. Wallace	Fort Worth, Texas
188	Clarence E. Beck	Daytona Beach, Fla.
189	James R. Luper	Portland, Ore.
193	Rollin B. Durbin	St. Louis, Mo.
194	Fred M. Dean	Knoxville, Tenn.
195	Alexander B. Pendleton	Reidsville, N.C.
196	Joseph B. Missal, Jr.	Cleveland, Ohio
211	William H. Frederick, Jr.	Minneapolis, Minn.
213	Vincent M. Miles, Jr.	Fort Smith, Ark.
215	Joseph B. Wells	Grant, Va.
218	Harris E. Rogner	Masury, Ohio
230	Gibson E. Sisco, Jr.	Fort Wayne, Ind.
231	Richard E. Sims	Little Rock, Ark.
232	Vincent Keator	Chichester, N.Y.
234	James W. Rhymes	Macon, Miss.
235	Ben Sternberg	Starke, Fla.
237	Frederic C. Teich, Jr.	New Britain, Conn.
238	Richard C. Thomas	Atchison, Kans.
240	Robert J. Bruton	Racine, Wis.
241	Charles M. Young	Helena, Ark.
245	John T. English	Mount Pleasant, Tenn.
246	Arthur A. Maloney	Hartford, Conn.
249	Littleton J. Pardue	Hopkinsville, Ky.
251	Edward G. DeHart	Erie, Pa.
254	Henry S. McDonald, Jr.	Buford, Ga.
260	Myrl F. Smith	Belding, Mich.
261	Wallace S. Ford	Pass Christian, Miss.
264	Joseph C. Reddoch, Jr.	Luverne, Ala.
269	Shelby Y. Palmer, Jr.	Shreveport, La.
270	Gabriel C. Russell	Louisville, Ky.
272	John H. Chambers	Fargo, N.D.
273	Birdsey L. Learman	Essexville, Mich.
274	John T. Corley	Brooklyn, N.Y.
279	Edward R. Skinner	Pomeroy, Ohio
283	Edward W. Jacunski	Detroit, Mich.
284	James K. Schmidt	Chicago, Ill.
285	Joe R. Brabson, Jr.	Washington, D.C.
287	Robert J. Hill	Chicago, Ill.
290	Robert H. York	Hartselle, Ala.
292	Ralph B. Lister	Buffalo, N.Y.
293	George R. Zohrlaut	Chicago, Ill.
295	Frank E. Hartman	Brookhaven, Miss.
296	William F. Neff	Atlantic City, N.J.
299	James H. Isbell	Union City, Tenn.

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TRAINING FILM FOR OBSERVATION AVIATION

Captain Samuel E. Anderson, Air Corps, Instructor in the Observation Section of the Air Corps Advanced Flying School, Kelly Field, Texas, was a recent visitor at the Infantry School at Fort Benning, Ga., and the Cavalry School at Fort Riley, Kansas. The purpose of Captain Anderson's visit was to confer with representatives of the service schools mentioned and coordinate the preparation of a picture plan for the proposed Air Corps Training Film on Observation Aviation and Infantry and Cavalry Missions which the Signal Corps contemplates releasing at an early date.

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NO AIRCRAFT ACCIDENT DURING ENTIRE YEAR

The 31st Bombardment Squadron, stationed at Hickam Field, T.H., accomplished what is thought to be a record when it finished the Fiscal Year 1938 without an aircraft accident of any nature. Another major achievement was made of record when the longest non-stop flight for the B-18 type airplane was performed when 31st Squadron pilots flew from Hamilton Field, Calif., to Dayton, Ohio.

Other outstanding feats included flights to San Antonio, Texas; Fort Leavenworth, Kansas, in addition to several coast to coast flights, while the organization was stationed at Hamilton Field.

Late in January, 1938, orders were received for the Squadron to proceed to Hickam Field, T.H., for permanent station. Despite the short time available before embarking at Fort Mason, Calif., on February 1, 1938, the movement was accomplished in a highly efficient manner. This was the first transfer of an entire organization in several years.

It is also noteworthy that all officers of this organization completed their minimum training requirements with a comfortable margin of time remaining.

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Brigadier General Barton K. Yount, Wing Commander (Colonel) Air Corps, was appointed Assistant to the Chief of the Air Corps, with rank of Brigadier General, for 4 years from July 17, '38

CIVILIAN WARNING NET TO AID AIR DEFENSE PROBLEM

In order to prepare for the largest and most important Air Defense exercises yet devised by the Army, the War Department has recently issued instructions to Major General George Van Horn Moseley, commanding the Third Army, to make detailed plans for a joint Antiaircraft-Air Corps exercise to be held at Fort Bragg, North Carolina, during the period October 3-17, 1938.

The directive, in addition to providing for heavy concentrations of anti-aircraft and Air Corps defense equipment, will enlist civilian aid on a large scale in the installation of an extensive aircraft warning net encircling Fort Bragg with a radius reaching to the North Carolina Coast.

Although an Aircraft Warning Net was tested on the West Coast in April of this year, which involved certain civilian and governmental agencies, the net in North Carolina will be not only much more extensive but will place, for the first time, principal reliance on the civilian personnel of the area covered.

The general function of the warning net is to warn the defended area of the approach of any hostile aircraft, in order to provide for interception by the defending Pursuit Aviation and immediate defensive fires by the anti-aircraft artillery.

The net will consist of some 300 stations. It will utilize to the maximum extent the existing commercial telephone communication facilities, together with similar facilities of the Federal, State and municipal agencies, and of the railroads, power companies and other similar private agencies, all of whom are cooperating in every possible way in the preparation of the plans.

One of the chief purposes of the exercise will be to test under simulated service conditions the adequacy of our present tactical and technical procedure and to determine what changes, if any, are necessary to meet present day conditions.

For this purpose it will be assumed that the Fort Bragg Military Reservation contains an important base airdrome, defended by a complete, all-around coordinated anti-aircraft artillery and Pursuit Aviation defense. The exercise will be two-sided, in that attacks will be made by portions of the GHQ Air Force. However, the purpose is not an appraisal of relative efficiency of the two arms, but is designed solely as a training exercise to determine the best tactical methods and dispositions of defense against the most effective forms of aerial attack.

The results of the test to be made during this exercise of the practicability of manning warning nets along our coast line by civilians will be of much importance to the War Department in connection with the formulation of plans for the installation, in time of war, of such nets, which are an essential part of the defense of the country against enemy attacks from the air.

The exercise will involve the concentration of a large percentage of the Regular Army anti-aircraft artillery in the United States. A large part of the GHQ Air Force will participate.

The Defense will consist of the following troops, under command of Brigadier General Fulton Q.C. Gardner, U.S. Army, who now commands the Fourth Coast Artillery District, with station at Fort McPherson, Ga.:

A Provisional Anti-aircraft Artillery Brigade, to include the following troops, with home stations as indicated:

61st Coast Artillery (AA), Fort Sheridan, Ill.
62nd Coast Artillery (AA), Fort Totten, N.Y.
69th Coast Artillery (AA), Fort Crockett, Texas.
Batteries A and C, 2nd Coast Artillery (HD), Fort Monroe, Va.

A Provisional Wing, Air Force, to include:

33rd Squadron, 8th Pursuit Group, Langley Field, Va.
36th Squadron, 8th Pursuit Group, Langley Field, Va.
Headquarters and Headquarters Squadron, 8th Pursuit Group, Langley Field, Va.
27th Squadron, 1st Pursuit Group, Selfridge Field, Mich.
The 51st Signal Battalion, Fort Monmouth, New Jersey.

The Attacking Force will consist of the following organizations of the GHQ Air Force, with home stations as indicated, under command of Brigadier General Arnold N. Krogstad, Air Corps, U.S. Army, now stationed at Landley Field, Va.:

2nd Wing Headquarters, Langley Field.
18th Reconnaissance Squadron, Mitchel Field, L.I., New York.
2nd Bombardment Group, Langley Field.
9th Bombardment Group, Mitchel Field.
1 Attack Squadron, 3rd Wing, Barksdale Field, La.
1 Bombardment Squadrom, 1st Wing, March Field, Calif.

Brigadier General William Bryden, U.S. Army, Commanding General, Fort Bragg, N.C., will act as Director of the Exercises.

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During the month of June, the Engineering Department of the San Antonio Air Depot, Duncan Field, Texas, overhauled a total of 14 airplanes and 34 engines, and repaired 48 planes and 46 engines.

SPOT LANDINGS BY INSTRUMENTS AT RANDOLPH

On a recent Saturday, 19 graduates of the instrument landing training demonstrated their skill in a spot landing test which was expected to show the accuracy which might be attained, as well as the extent to which graduates retained their skill after ceasing regular and frequent practice.

Each pilot was permitted to make one flight entirely on instruments, including take-off and landing, and was limited to twenty minutes' flying time. BT-9 airplanes were used exclusively and a flag was placed on the airdrome to mark the spot where a BT-9 would stop after a theoretically correct landing and a normal roll. The work of each pilot was judged entirely by his nearness to this flag when he opened the hood after stopping, provided, of course, no assistance was had from the safety pilot or external vision.

The first pilot to take-off was 1st Lieut. E.A. Joyce, Air Reserve, who made a beautiful landing right on the line to the flag, but stopped rolling 836 feet before reaching it. This was considered highly creditable, as it was only the second time that Lieut. Joyce had made instrument landings in a BT-9. Captain James B. Burwell lowered the record to 643 feet, which was soon cut to 318 feet by 1st Lieut. R.W. Burns, Commanding Officer, Flight B, Basic Stage. Second Lieut. Tom H. Cunningham promptly lowered the record to 240 feet, and no subsequent pilot was able to improve this.

This test was a welcome change from the routine instrument landing training, which had been done outside the usual duty hours to avoid hazard from student flying, and because with the present large classes officers have not been able to spare the time during duty hours. Notwithstanding these handicaps, 36 pilots, including the Post Commander, Lieut. Colonel John B. Brooks, have completed the training since February and been found qualified by the rigidly applied rule of three consecutive landings without assistance.

Officers, often already overloaded, have undertaken this extra duty with a willingness which is shown by the long waiting list of applicants of the course; and if any ladies have murmured at the substitution of instrument landing practice for the usual dinner hours, they have not made such complaints public.

If the test did not prove anything else, it confirmed the fact that a large proportion of the Air Corps officers consider instrument landing training highly important.

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Major Lawrence P. Hickey, Air Corps, has taken over the command of the 1st Pursuit Group, Selfridge Field, Mich.

HIGH FLYING TIME MARK AT RANDOLPH FIELD

Randolph Field officers and students flew this past fiscal year the unusual total of 102,932 hours and 25 minutes. This total exceeded previous fiscal years of 1936 and 1937 by approximately 30,000 flying hours.

The 46th School Squadron led in flying time on the field with a total of 28,513 hours and 40 minutes. This Squadron has consistently led in flying time for Randolph Field for the last three years.

The Randolph Field Correspondent expresses the belief that this record for Randolph Field is as high as at any other Air Corps field and requests comments.

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FLIGHT OF ARMY AIRPLANES TO COLOMBIA

Due to a change in training plans, the composition of the proposed flight of United States Army airplanes to Bogota, Colombia, will consist of one flight of three B-17 Bombers from Langley Field, Va., instead of the flight from Panama, as previously stated.

This flight, as announced on July 6, 1938, by the State Department, will participate in the inaugural ceremonies of President-elect Dr. Eduardo Santos on August 7th, at Bogota, as a gesture of good will and in order to emphasize the solidarity and community of interests between the two Republics.

Personnel included in the flight will consist of fourteen officers and twelve enlisted men.

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A.C. NONCOMMISSIONED OFFICERS PROMOTED

The following noncommissioned officers of the Air Corps, having recently been examined and found qualified for a higher grade in the Air Corps (Weather Service), and as vacancies exist therein, were appointed to the grade indicated in the Air Corps(Weather Service), pursuant to authority contained in Army Regulations No. 615-5:

To Mr. Sergeant, A.C. (Weather Service)

Technical Sergeants Diran Arakelian, Wm. F. Bernheisel, Harry F. Gordon, Myron E. Howe, of Patterson Field, Ohio; Harry J. Cuskey, Middletown Air Depot, and Martin F. Sebode, Langley Field, Va.

To Tech. Sergeant, A.C. (Weather Serv.)

Staff Sergeants Ralph W. Beatty, Robt. M. Glenn, James L. Hubbard, Herman J. Pryber and William A. Smith, of Patterson Field, Ohio; John S. Hambleton, of Fort Leavenworth, Kansas; and Devon F. Maurer, of Selfridge Field, Mich.

Of the noncommissioned officers above enumerated, Sergeants Bernheisel, Cuskey, Gordon, Sebode, Beatty, Glenn, Hubbard

(Continued on page 10)

AWARD OF THE MACKAY TROPHY

The War Department announced that Captains Carl J. Crane and George V. Holloman, Air Corps, will be awarded the Mackay Trophy for 1937 for their outstanding achievement in successfully developing and actually demonstrating the Airplane Automatic Landing System.

The Board of Air Corps officers, recently convened to make recommendations relative to the award of the Mackay Trophy, was of the unanimous opinion that these two officers highly merited this award. Both of them, well versed in aeronautical engineering, particularly in the functioning of various instruments and devices relating to aerial navigation, devoted intensive research and painstaking effort over a period of two years toward perfecting the automatic landing system. The first flight under this system was accomplished on Aug. 23, 1937, and it marked the first entirely automatic landing in aviation history-that is, the entire landing control was incorporated within the aircraft itself; there was no human manipulation of plane controls at any time.

Associated with Captains Crane and Holloman in the development of the automatic landing system was Mr. Raymond K. Stout, project engineer at the Air Corps Materiel Division, Wright Field, Ohio. Since the Mackay Trophy, through the provisions of the deed of gift, can only be awarded to officers of the United States Army, Mr. Stout was given a letter of commendation from the Acting Secretary of War, the Honorable Louis Johnson, for his work in this striking development.

The automatic landing system was designed by Captain Crane, Director of the Instrument and Navigation Laboratory at Wright Field and, working with Captain Holloman, he conducted practically all of the flight tests which brought to a successful conclusion the automatic landing system. The various units of automatic control were designed by these officers, Mr. Stout, and Mr. C.D. Barbulesco, of the Signal Corps Aircraft Radio Laboratory, which laboratory assisted materially in the design and construction of various units entering into the automatic landing system.

The Mackay Trophy was tendered to the Aero Club of America in 1912 by Mr. Clarence H. Mackay, the deed of gift stipulating that it was to be awarded annually to the officer or officers of the United States Army making the most meritorious flight of the year. The National Aeronautic Association, Washington, D.C., successor to the Aero Club of America, is the present custodian of this Trophy.

Associated with the Mackay Trophy are most of the highlights in the history of Army aviation, such as the first non-stop flight across the American continent by Lieutenants Kelly and Macready; the first flight around the world under the leadership of Captain Lowell H. Smith; and the Army Good Will Flight around South America, led by Major Herbert A. Dargue. Since 1912, the Mackay Trophy has been awarded annually by the War Department for meritorious flights, with the exception of the year 1917. Of noteworthy interest in connection with the award of this Trophy is the fact that Brigadier General Henry H. Arnold, Assistant Chief of the Air Corps, is a two-time winner thereof. He received the first award in 1912 for a reconnaissance flight in the early Wright biplane from College Park, Maryland, to Fort Myer, Va.; Alexandria, Va., and return to College Park, and the second award, 23 years later, for his leadership of a squadron of ten B-10 Martin Bombers from Washington, D.C., to Fairbanks, Alaska, and return, in July-August, 1934.

Eighteen years ago, the Trophy was also awarded for a meritorious flight to Alaska (New York to Nome, Alaska, and return to Washington, D.C.), that expedition being headed by Captain St. Clair Streett.

Two early Army fliers, still in active service, who won the Mackay Trophy are Colonels Shepler W. FitzGerald and Byron Q. Jones, Air Corps, the former receiving it in 1914 for a reconnaissance flight and the latter the following year for establishing an American duration record.

Two Air Corps officers still in the service, who share with General Arnold the distinction of being two-time winners of the Trophy, are Majors Lowell H. Smith and Oakley G. Kelly. Major Smith won the award in 1919 for his participation in the Transcontinental Reliability Test Flight in the fall of that year, and in 1924 for his leadership of the Around-the-World Flight. Major Kelly, jointly with former Captain John A. Macready, won the Trophy in 1922 for a record-breaking duration flight, and in the following year for the successful culmination of the first non-stop flight across the American continent. Incidentally, Major Kelly's flying partner (Captain Macready) is the only three-time winner of the Trophy, for he also received it in 1921 for a record-breaking altitude flight. A member of the Around-the-World Flight, who is now in civil life, is also a two-time winner of the Trophy. This individual, Major Erik H. Nelson, Specialist Reserve, participated also in the Alaskan Expedition in 1920.

Captain Crane, a native of San Antonio, Texas, where he was born on October 20, 1900, is an honor graduate of the Univer-

sity of Dayton, Dayton, Ohio, where he received a B.M.E. degree in 1924. Commissioned a second lieutenant in the Air Service, July 5, 1924, he was promoted to 1st Lieutenant, March 28, 1930, and to Captain, August 1, 1935. Following his graduation from the Primary Flying School, Brooks Field, Texas, February 28, 1925, and from the Advanced Flying School, Kelly Field, Texas, where he specialized in Pursuit Aviation, on September 14, 1925, he was assigned to Selfridge Field, Mich., for duty with the 27th Pursuit Squadron as Engineering Officer, and later as Supply Officer.

In June, 1927, he was transferred to Kelly Field, and he served there until November 18, 1927, when he was assigned to duty as flying instructor and academic instructor at the Primary Flying School at Brooks Field, Texas. For one year, from October, 1931, he was on duty as academic instructor at the Primary Flying School at Randolph Field, Texas. From November, 1932, to November, 1934, he was on duty at Albrook Field, Panama Canal Zone, where for the most part of the time he served as engineering officer. In December, 1934, he was assigned to his present station at Wright Field, Dayton, Ohio.

Captain Crane's interest in instrument flying dates from the time he was on duty as instructor at Brooks Field. Here he was associated with Lieut. Colonel William C. Ocker in connection with the training of pilots to fly in hooded cockpits, using radio aids. He is the co-author with Colonel Ocker of the book "Blind Flying in Theory and Practice."

Captain Holloman, a native of Rich Square, N.C., where he was born on September 17, 1902, graduated from the North Carolina State College in 1925, with a B.S. degree in Electrical Engineering. Commissioned a second lieutenant in the Regular Army on September 24, 1925, he was assigned to the 29th Infantry and was stationed at Fort Benning, Georgia, for two years. Detailed to the Air Corps, he completed the primary flying course at Brooks Field, and the advanced flying course at Kelly Field, where he specialized in Observation Aviation, and received the ratings of "Airplane Pilot" and "Airplane Observer," June 25, 1928. He was then assigned to duty with the 88th Observation Squadron at Fort Sill, Oklahoma, where he served for two years.

At his next station, Chanute Field, Rantoul, Ill., he completed the Communications course at the Air Corps Technical School, and on June 24, 1931, he was assigned to duty at the Materiel Division, Wright Field, Dayton, Ohio.

Following his graduation from the 1934-1935 course at the Air Corps Engineering School, Wright Field, Ohio, on August 1, 1935, he returned to duty in the Equipment Branch, Engineering Section, of the Materiel Division.

The National Aeronautic Association, custodian of the Mackay Trophy under the terms of the grant by the donor, will announce in the near future the date and place of the ceremonies incident to the presentation of the Trophy to Captains Crane and Holloman.

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Promotion of Noncommissioned Officers

(Continued from Page 8)

Maurer and Pryber are members of the 2nd Weather Squadron, and Sergeants Arakelian, Howe, Hambleton and Smith of the 3rd Weather Squadron.

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TRUE AIR-SPEED METER

The True Air-Speed Meter or Indicator differs from the air-speed indicator now in use in that it indicates the true air speed directly. The present method of air-speed indication must be corrected for temperature and pressure to obtain the true air speed.

The standard air-speed indicator employs a pitot-static head for obtaining a differential between the static pressure (still air) and the dynamic pressure, which is the impact pressure in the open end of a tube facing the direction of travel. The "true air-speed" indication is obtained in a manner similar to that of a screw through a threaded hole. The propeller or impeller turns at a rate proportional to the speed with which it is moving forward. Theoretically there must be no friction retarding the movement of the impeller, but practically this is impossible. However, every effort is made to reduce the friction, and the results obtained in tests to date indicate satisfactory results with this true air-speed indicator. The impeller makes and breaks two circuits which control solenoids in the indicator. These solenoids control the length of time the counting mechanism of a chronometric-type indicator is operating and conversely the length of time the pointer is held. The action is similar to that of a chronometric tachometer except that the speed of the make and break of the circuits is indicated on a suitably calibrated dial in miles per hour.

A service test quantity of ten of this type of instrument is now on procurement by the Air Corps Materiel Division, Wright Field, Dayton, Ohio.

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Lieut. Colonel Joseph T. McNarney, Air Corps, is expected to arrive at Hamilton Field in the very near future from Langley Field, Va., at which post he served as Chief of the G-4 Section of the Headquarters GHQ Air Force. Col. McNarney at one time commanded the 7th Bombardment Group at March Field before it was moved to Hamilton Field in 1934.

HAWAIIAN POLICEMAN WINS PISTOL MATCH
By 1st Lieut. E.W. Suarez, Air Corps

The Wheeler Field Rifle & Pistol Club was represented at the first annual Kauai Championship Pistol Match by Corporal O.J. Witham, of the 26th Attack Squadron, Air Corps. Corporal Witham placed second in the event. The match was well attended, with sharpshooters from all over Kauai participating.

The winner was Mr. Kimokeo, a policeman of Kauai. Mr. Beam, representing the Makaweli Rifle & Pistol Club, and considered one of the best pistol shots on Kauai, came in a close third. The match was fired on the range of the sponsors, the Makaweli Rifle & Pistol Club. The range is one of the finest in the islands for pistol shooting. Corporal Witham says that the true meaning of "Hawaiian Hospitality" was brought home to him by this trip to the Garden Isle. Everyone with whom he came in contact did everything possible to make the trip a pleasant one.

The Wheeler Field Rifle & Pistol Club was organized a year ago through the interest and efforts of Lieuts. G.E. Price, J.G. Russell, and a group of enlisted "Gun-Bugs" of Wheeler Field. Since then they have built their own outdoor, small bore range. It consists of firing points for fifteen shooters at ranges of 50 and 100 yards. The range was built with the volunteer labor of the charter members of the club.

The first annual matches, both rifle and pistol, of the Hawaiian Territorial Rifle Association, were held on the Wheeler Field Range. This is, indeed, a compliment when it is realized that this association is comprised of over twenty rifle and pistol clubs.

The Wheeler Field Club is very much interested in hearing from other Air Corps rifle or pistol clubs throughout the Army.

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SQUADRONS IN PHILIPPINES SWAP STATIONS

A long rumored change of stations between the 28th Bombardment Squadron, stationed at Nichols Field, and the 3rd Pursuit Squadron at Clark Field, became a reality on June 1st, when instructions were received from Headquarters Philippine Department, directing the interchange of these organizations, commencing June 15th.

Tactical considerations prompted the transfer. The landing and hangar facilities at Nichols Field were inadequate for the training requirements of the 28th, whereas ample hangar and landing space are available at Clark Field.

The transfer of these units commenced on June 15th and was estimated to be completed in about ten days. Air and government motor transportation was used incident to moving of personnel, property and household effects from Nichols Field to Clark Field and vice versa.

The personnel of the 3rd Pursuit Squadron consists of 7 officers and 69 enlisted men. The commissioned complement moved comprised Major Lloyd Barnett, 1st Lieuts. Jerome E. Blair, II, and Norman R. Burnett, and 2nd Lieuts. Cecil E. Combs, Conrad F. Necrason, John M. Bartella and Jackson H. Gray.

The personnel of the 28th Bombardment consists of 6 officers and 91 enlisted men. Commissioned officers moved to Clark Field are Major Guy L. McNeil, 1st Lieuts. David N. Motherwell, Wendell W. Bowman, Hunter Harris, Jr., Stanley J. Donovan and 2nd Lieut. Paul E. Todd.

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GENERAL CHANEY LEAVES RANDOLPH FIELD

General and Mrs. James E. Chaney departed on July 16th from Randolph Field for their new station, Mitchel Field, N.Y. Since May 17, 1935, General Chaney, acting as Assistant Chief of the Air Corps, has commanded the Air Corps Training Center.

On Saturday, July 2nd, a ground review of troops (including all officers, flying cadets and enlisted men of Randolph Field) was held in honor of General Chaney. The twenty-third Infantry Band was generously loaned to Randolph Field to provide music for this review.

On July 9th, the officers and ladies of Randolph Field gave a farewell party, honoring General and Mrs. Chaney. On Saturday, July 16th, many officers and ladies gathered in front of the Administration Building to say good-bye as the Chaneys drove away. A formation of airplanes circled above their automobile, and accompanied them for several miles along the highway.

All personnel of the Air Corps Training Center regret the departure of the Commanding General and his wife. Every officer and enlisted man has thoroughly enjoyed serving under General Chaney.

Mrs. Chaney has been very active in charitable, welfare and social activities, both on the post and in the nearby civilian areas. They will be greatly missed by all who have known them.

Brigadier General Barton K. Yount will succeed General Chaney as Commanding General of the Air Corps Training Center. Word was received that General and Mrs. Yount expect to arrive at Randolph Field about August 3rd. All personnel are looking forward to welcoming them upon their arrival.

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Special Orders of the War Department, recently issued, announce the retirement from active service on July 31, 1938, of First Sergeant Jared Leet, Base Hqrs. and 5th Air Base Squadron, Hamilton Field.

RADIO SCHOOL AT MAXWELL FIELD

Six Air Corps enlisted men graduated on July 2nd from the second class of the Post Radio School at Maxwell Field, Ala., and were immediately assigned to duty as operators, as indicated:

Technical Sergeant G.D. Tomberlin, Privates J.M. Cosby, M.P. Dufalo and R.H. Garrett to Airdrome and Airways Control Station;

Privates D.P. Parker and H.M.Forehand to Post Communications Section.

The purpose of this Radio School is to train enlisted men as radio operators for the Airways Control and Airdrome Control and Post Communications Section. The course consists of the following subjects:

Sending and Receiving International Morse Code,
Practical Radio Technique,
Tactical Radio Procedure,
Airdrome Control Procedure,
Net Operating Practice,
Typing,
Elementary Meteorology,
Installation and Adjustment of Aircraft Radio Equipment.

The third class of this school was scheduled to start on July 25th, with about 15 students. The graduation date for this class is tentatively set for January 25, 1939.

The School is conducted under the supervision of 1st Lieut. R.E.L. Choate, Air Corps, Post Signal Officer, with Sergeant B.F. Borders as Instructor and Noncommissioned Officer in Charge.

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AIR CORPS ACTIVITIES IN HAWAII

Equipped at present with a BT-9 and a number of B-18's, and with the assignment of more B-18's to the organization in the near future, a new high mark will be set for the 23rd Bombardment Squadron at Luke Field, T.H., in so far as modern equipment is concerned.

The Squadron recently made a mass flight to Hilo, Hawaii, and as many as possible took advantage of the short stay at Kilauea.

The 50th Reconnaissance Squadron has been photographing airdromes on outlying islands for the Department Airways Officer.

On June 21st, six officers and twelve enlisted men flew to Hilo, Hawaii, in two flights of Martin B-12 Bombardment airplanes. The News Letter Correspondent of the 50th Squadron states that "a two-day stay at the Kilauea Military Camp enabled us to see some of nature's wonders, volcanic craters, lava tubes, and the Fern Forest. It is a rare treat, and we all hope to make the trip again very soon."

During the period from July 5th to 15th, the 50th Reconnaissance Squadron was scheduled to be at Bellows Field for a two-week gunnery period.

The end of June found the 72nd Bombardment Squadron at Luke Field, T.H., prepared to begin the next year's training in good shape.

The month of June found the Base Headquarters and 17th Air Base Squadron, Luke Field, receiving new men into its ranks as the long discussed shake-up of the 5th Bombardment Group materialized. Although a number of men were lost to the Squadron, transfers from other organizations within the Group and the Hawaiian Department materially increased the strength of the Squadron. The Squadron maintains a detachment of enlisted men at Hickam Field.

Lack of a sufficient number of noncommissioned officers in the Base Headquarters and 17th Air Base Squadron resulted in the appointment of the following Privates, 1st Class, as Acting Corporals: Dorn; Hyatt, Johnson, J.W.; Lafkas, Naugle, Nothstein, Ringo, Robertson and Simpson.

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ACTIVITIES AT THE HAWAIIAN AIR DEPOT

With the gradual increase of Army aircraft in the Hawaiian Department, the Hawaiian Air Depot has been forced to increase the personnel thereof to well over the capacity of the old ferry, which brings the employees across Pearl Harbor to Ford Island every morning and returns them every evening.

Major Charles E. Branshaw, Commanding Officer of the Hawaiian Air Depot, has been wrestling with the problem of working out methods to get his personnel back and forth across the water. Until a new ferry contract can be accomplished, it will be necessary to stagger the Depot working hours: 7:15 a.m. to 3:30 p.m., for Headquarters and Supply, and 7:45 a.m. to 4:00 p.m. for Engineering.

Major Ames S. Albro, the Depot Engineering Officer, together with Major William J. Hanlon, Supply Officer, have been having their usual share of headaches trying to surmount the barrier of ocean water between Hawaii and the mainland in getting equipment and parts for the B-18's, P-26's, etc.

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TENNIS PERKS UP AT BOLLING FIELD

Four new tennis courts which were recently completed at Bolling Field are a fine addition to its recreational facilities and will open up another popular activity for the post personnel.

FIRST WING TO TRAIN IN THE NORTHWEST

The First Wing, GHQ Air Force, will move to the Pacific Northwest during the period August 8th to the 15th.

The Seventh Bombardment Group, Headquarters and Headquarters Squadron, 9th and 11th Bombardment Squadrons from Hamilton Field, with 15 planes, 34 officers and 95 enlisted men, will be stationed at Felts Field, Washington, near Spokane.

The 88th Reconnaissance Squadron will be stationed at McChord Field, Washington (Tacoma Municipal Airport). There will be a total of 33 planes, 79 officers and 220 enlisted personnel.

The primary purpose of this maneuver is to schedule long range reconnaissance missions and to familiarize personnel with the terrain and available military facilities throughout the Pacific Northwest Area.

Operations:

August 8th - Concentration of airplanes and personnel at operating airdromes.

August 9th - Aerial reconnaissance of principal cities and airdromes within operating area.

August 10th - Bombing exercises off Cape Flattery.

August 11th - Bombing demonstration at Fort Lewis.

August 12th - A long range reconnaissance assembly problem.

August 13th - Airplane maintenance and local reconnaissance.

August 14th - Open house for inspection by civil populace.

August 15th - Evacuation and return to home airdromes.

All supplies other than food will be flown by air transport from Hamilton and March Fields.

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RETIREMENT OF MASTER SERGEANT OSBURN

War Department orders were recently received placing Master Sergeant Charley J. Osburn, 63rd School Squadron, Air Corps Advanced Flying School, Kelly Field, Texas, on the retired list, effective July 31, 1938, the date he will have completed thirty years of service in the Army.

This old noncommissioned officer, who has had a colorful and interesting military career, recently arrived in the States with his family aboard the U.S. Army Transport GRANT from the Philippine Department, where he served as Line Chief with the 28th Bombardment Squadron, Air Corps, at Nichols Field. This was Sergeant Osburn's second tour of duty in the Philippines, he having previously served there from December, 1908, to July, 1909, while a member of Company "I," 30th Infantry.

Sergeant Osburn's service in the Army began on September 25, 1908. He has had "hitches" in the Infantry, Coast Artillery Corps, Signal Corps, and during the past 16 years he has served continuously in the Air Corps, which he joined on March 31, 1922. He holds the unique distinction of attaining the grade of Technical Sergeant, Air Corps, on his first enlistment in his newly chosen branch of the service. He was promoted to the grade of Master Sergeant on October 10, 1932.

All of Sergeant Osburn's Discharge Certificates bear the notation of "Excellent" character, and he was discharged as a noncommissioned officer from all but his first enlistment period, once as Corporal, twice as Sergeant, 1st Class, thrice as Technical Sergeant and twice as Master Sergeant. His current enlistment began on March 31, 1937.

During the World War, Master Sergeant Osburn served at the School of Fire, Fort Sill, Oklahoma, while a Sergeant, 1st Class, Signal Corps, on duty with the Ordnance Department. He points with pride to the fact that, as far as he knows, he is the only soldier to complete thirty years of service who still has in his possession the initial issue of two O.D. blankets, furnished him on his first enlistment. These two comfortable old blankets which have seen such long service were issued to him at Jefferson Barracks, Mo., in 1908, and still have a lot of "wear and tear" left in them.

Although a native of Sundet, Arkansas, Sergeant Osburn has selected San Antonio Texas, as the place to make his home with his wife, son and daughter. Another son, "J.C.," is a Private in the 28th Bombardment Squadron, Air Corps, at Nichols Field, P.I., and he is well on his way following his Dad's footsteps.

The Air Corps, and his many friends al over the service, congratulate this fine old noncommissioned officer on his splendid record and the service rendered his country, and their best wishes go with him on his well earned retirement.

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NEW RUNWAY CONSTRUCTED AT NICHOLS FIELD

An asphalt runway is being constructed at Nichols Field, Rizal, P.I., extending the length of the flying field and running north and south. Grading is now being done by about sixty laborers. When completed it will be about 60 feet wide and 1500 feet long, and it is expected to be ready for use about December 1st. It is anticipated that construction will have to be deferred during the rainy season.

The newly constructed runway will permit the take-off of airplanes regardless of the condition of the rest of the flying field and will be conducive to higher tactical efficiency of all organizations of the 4th Composite Group.

V-7807, A.C.

NEW CLASS FOR FLIGHT SURGEONS

Another routine course of instruction to qualify Medical officers for duty as Flight Surgeons was commenced at the School of Aviation Medicine, Randolph Field, Texas, on July 15, 1938, and will continue for four months. The following student officers are enrolled:

Medical Corps, Regular Army

Captain Clifford O. Bishop, Barksdale Field, La.
Captain Lester O. Crago, Maxwell Field, Ala.
Captain Emmert C. Lentz, Fort Bragg, N.C.
Captain James L. Tobin, Hamilton Field, Calif.
Captain Scott M. Smith, Lowry Field, Denver, Colo.
1st Lieut. Harold A. Myers, Kelly Field, Texas.
1st Lieut. James W.S. Stewart, Randolph Field, Texas.

Medical Corps, U.S. Navy
Lieutenants

Julius C. Early, U.S. Navy Recruiting Station, Pittsburgh, Pa.
Julian M. Jordan, Navy Yard, Puget Sound, Wash.

Lieutenants (J.G.)

Thomas Ferwerda, Naval Medical School, Washington, D.C.
Charles F. Gell, Naval Unit, Edgewood Arsenal, Edgewood, Md.
Merrill H. Goodwin, Naval Unit, Edgewood Arsenal, Edgewood, Md.
Charles F. McCaffrey, Naval Unit, Edgewood Arsenal, Edgewood, Md.
Wesley L. Mays, Naval Unit, Edgewood Arsenal, Edgewood, Md.
Clifford P. Phoebus, Naval Unit, Edgewood Arsenal, Edgewood, Md.

Medical Corps, Cuban Army

1st Lieut. Dr. Francisco Hernandez D'Abrigeon, Camp Columbia, Havana, Cuba.

The basic courses are conducted annually, starting in July and December of each calendar year.

In addition to the resident courses, the School conducts throughout the year extension (correspondence) courses of considerable magnitude.

The School of Aviation Medicine is an activity of the Air Corps Training Center.

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PENNSYLVANIANS VISIT LANGLEY FIELD

A distinguished party of visitors, including a son of the Governor of Pennsylvania, stayed overnight recently at Langley Field as guests of Major H.R. Bazley, of Headquarters Squadron of the 8th Pursuit Group.

Mr. George Earle; Colonel Cammy Vinet, Chief of the Division of Aeronautics of Pennsylvania, and Captain A.M. Banks, of the Pennsylvania State Motor Police, arrived at Langley Field on the evening of July 6th, an hour and 35 minutes after their departure from Harrisburg in a Stinson airplane. The visitors returned to that city the following morning.

Mr. Earle, who made his first solo flight a few days prior to this visit, is reported to be especially interested in airplanes. He spent much time viewing the "Flying Fortresses" at the 2nd Bombardment Group Headquarters, also the various Pursuit airplanes.

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SELFRIDGE OFFICER MAKES SWIFT "HOP"

Flying a new Seversky P-35 Pursuit plane, 1st Lieut. Harold L. Neely, Air Corps, stationed at Selfridge Field, Mt. Clemens, Mich., rocketed across the American continent on July 28th at an average speed of approximately 278 miles per hour, possibly setting a new Army record for west to east flight.

Every Air Corps pilot is required to make at least one 1,000-mile extended navigation flight a year, and Lieut. Neely chose a San Francisco-New York "hop" as his task.

Lieut. Neely took off from San Francisco at 4:34 a.m., Pacific Time, and arrived at Mitchel Field, Long Island, New York, at 4:05 p.m., Pacific Time, for a total elapsed time of 11 hours and 29 minutes. A 25-minute stop at Salt Lake City, a 30-minute stop at Omaha and a 40-minute stop at Cleveland, totalling an hour and 35 minutes, made his flying time across the American continent nine hours and 54 minutes.

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NARROW ESCAPE FOR SERGEANT WEISNER

Staff Sergeant Walter Weisner, 94th Pursuit Squadron, Selfridge Field, Mich., narrowly escaped death on July 24th, when the private two-seater monoplane he was piloting dived into a field on the outskirts of Mt. Clemens, Mich. The Sergeant was flying a commercial Aeronca C-3 model plane licensed to Herbert A. Kertzschman and Floyd D. Damson, of Walled Lake, Mich. He had made several landings during the morning, and on his next take-off, a witness, Mr. John Sonnenberg, of Mt. Clemens, noticed the plane flying in his direction at 500 feet altitude. As it tried to bank it went out of control and crashed. Sonnenberg ran over to the wrecked plane, turned off the gas cock to prevent fire and, assisted by an unidentified man, carried Weisner from the plane. Taken to the St. Joseph Hospital by Deputy Sheriff Isadore Trombley in an ambulance car, the patient was later transferred to the Base Hospital at Selfridge Field, where the Surgeon stated his condition was satisfactory, although he is suffering from a fracture of one of the bones of the face, in addition to lacerations of the face and the left eye.

air corps NEWS LETTER



ISSUED BY THE OFFICE OF THE CHIEF OF THE AIR CORPS

WAR DEPARTMENT WASHINGTON, D.C.

VOL. XXI AUGUST 15, 1938 NO. 16

VOL. XXI AIR CORPS NEWS LETTER NO. 16.

Information Division, Air Corps — August 15, 1938 — Munitions Building, Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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THE FLIGHT TO BOGOTA, COLOMBIA

The second "Good Will" flight this year of Army Air Corps planes to a South American republic, to represent the United States at the inauguration ceremonies of a president-elect, terminated successfully at Langley Field, Va., the point from which it started, at 1:45 p.m., Friday, August 12th.

The airplanes used on this flight, three B-17 "Flying Fortresses," under the command of Major Vincent J. Meloy, Air Corps, negotiated the long journey over land and water to Bogota, the capital of the Colombian Republic, and return, without incident.

On the homeward-bound journey, the Army flyers, on August 11th, met in a rendezvous over Chapman Field, Miami, Fla., the Army's mightiest Bombardment airplane, the XB-15, which was piloted by Lieut. Colonel Robert Olds, Air Corps, commanding the Second Bombardment Group, GHQ Air Force, Langley Field, Va. He was accompanied by Brigadier General Arnold N. Krogstad, Air Corps, commanding the Second Wing of the GHQ Air Force.

Colonel Olds was the leader of the expedition of six B-17's on the first "Good Will" flight this year - last February - to Buenos Aires, Argentina.

The rendezvous over Chapman Field was effected at 2:15 p.m., following which Col. Olds landed the huge Bombardment airplane, which is one-third larger than the B-17, at the Municipal Airport at Miami. He had made the flight from Langley Field to Miami in very good time.

The expedition of three B-17's, with Major Vincent J. Meloy, Flight Commander, piloting Plane No. 51; Major Harold L. George, Plane No. 62, and Major Caleb V. Haynes, Plane No. 80, took off from Langley Field on the south-bound journey to Bogota at 9:00 a.m., August 3rd, and landed at the Muhicipal Airport at Miami at 2:35 o'clock that afternoon, covering the distance of 850 miles in about 5½ hours. After the take-off from Langley Field, each airplane navigated on its own, effecting a rendezvous over Jacksonville, Fla., at 12:30 p.m. From there on into Miami, visual contact was maintained. The weather was favorable throughout, with scattered clouds, good visibility and moderate winds.

After the landing at Miami, the remainder of the afternoon and all of the following day were spent in servicing, maintenance and adjustment of equipment. On the evening of August 3rd, the officers were the guests of the Miami Rod and Reel Club at an informal dinner. The Press Relations Officer of the flight, Lieut. Frederick E. Glantzberg, delivered a short but effective talk on the purpose and composition of the flight over a local broadcasting station.

Very early Friday morning, August 5th, the Army airmen took off from the Airport at 3:00 o'clock. A run of about 25 seconds was sufficient to lift each plane.

There was no wind at the surface and at 1500 feet there were scattered clouds. By daylight (5:00 a.m.), the flight was well south of Cuba, each plane again being navigated individually. A rendezvous was effected over Barranquilla, Colombia, at 8:55 a.m., and visual contact was maintained from there to Bogota. Strong head winds delayed progress somewhat, and the landing at Bogota was made within thirty minutes of the prediction from Miami sent to the American Legation by cable the previous day. Despite the altitude of the airport at Bogota (8,660 feet above sea level), all planes made perfect landings.

Approximately 3,000 persons were present at the airport at the time of landing. An adequate guard of Colombian soldiers was present and remained to guard the planes during the stay. The Special Ambassador to the Inauguration, Mr. Jefferson Caffery; the Charge de Affaires of the American Legation, Mr. Winthrop S. Greene; the U.S. Naval Attache, Captain John C. Munn, were present and introduced a large number of officials of the Colombian Government, military and diplomatic, to the senior members of the flight.

Due to the crowded conditions in the city, caused by thousands of visitors coming to Bogota to witness the inauguration of the President-Elect, Dr. Eduardo Santos, hotel space was available only for the three airplane commanders, the remaining officers being accommodated in a private home. Another home was turned over to the enlisted

personnel, who were furnished a bus for the movement to and from the field, one man being left with each plane at all times. All of the personnel of the flight were guests of the Colombian Government during the stay at Bogota, and the provisions made for them were entirely satisfactory in spite of conditions in the city.

In the afternoon of August 5th, all members of the flight, except the enlisted men on duty, attended the ceremonies incident to the opening of the Bolivarian games, these being the Olympic tryouts of the Republics liberated by Simon Bolivar, namely, Panama, Venezuela, Ecuador, Bolivia, Peru and Colombia. The President, Alfonso Lopez, and a distinguished gathering of military and diplomatic representatives of all nations, were present in a special stand. The appearance of the members of the flight was the signal for prolonged applause.

In the evening an informal reception was tendered the officers at the Bogota Jockey Club, attended by many of the influential citizens.

On Saturday, August 6th, the senior officers were guests at a reception by the Bolivian Minister at noon at the Jockey Club. At one o'clock, all officers were guests at a luncheon at the Military School, tendered the President and President-Elect. About 500 persons attended, including the military and naval personnel of all delegations to the Inauguration.

In the early evening the officers attended a party given by Captain Munn, U.S. Navy, at which about 150 persons were present. Later, the officers attended the pre-inaugural ball of the Mayor of Bogota, in honor of the President and the President-Elect. This was a most imposing and colorful event, lasting until daylight, and attended apparently by all the great and near-great of the country, as well as the visiting delegations.

On Sunday, August 7th, the inaugural ceremonies were held, beginning at 3:00 p.m. As originally planned, only four senior officers were to attend with the American Ambassador's party. However, at the personal direction of the President-Elect, space was provided so as to permit all the officers to attend. The ceremonies were held in a large hall in the Capitol and, [illegible] were most impressive, lasting until well after seven in the evening.

At noon on Monday, August 8th, a brief but impressive ceremony was held in the main cemetery of the city. It had been suggested by the flight commander that a tribute be paid victims of the disaster of July 24th, in which an airplane of the Colombian Air Force crashed into a crowd attending dedication ceremonies of a military parade ground at Santa Ana, near Bogota, as a result of which 64 persons had been killed and 80 were still in hospitals. As arranged through the Legation, a military band, a detachment of cadets from the Military School, the President with an escort of military dignitaries, the American Ambassador, and the entire membership of the flight were present. A wreath was laid at one of the receiving vaults in the cemetery, and Major Meloy made a brief but effective speech. The newly installed President responded. Although the entire proceedings lasted only about fifteen minutes, the general effect was most impressive.

At three o'clock, the foreign delegates to the Inauguration were received by the President in the Palace, where he greeted the commissioned members of the flight individually. At this ceremony Major Meloy presented a letter of greeting and felicitation from President Roosevelt to President Santos. Later he was given a reply to transmit to Washington.

At six o'clock, a party was given by the Colombian Air Force at the Granada Hotel for all members of the flight. Ambassador Caffery attended and shook hands with the enlisted personnel, praising their work in this flight. A reception by the Chilean Minister in the evening completed the list of official events of the stay.

The American airmen took off on the homeward bound journey at 9:15 a.m., August 9th. With everything in readiness for the departure, no difficulty was experienced in taking off the "Flying Fortresses" from the runway at El Techo, Bogota, despite the high elevation.

Lieut. Glantzberg, navigating officer and press relations representative of the flight, released the following information on the flight to the Canal Zone:

"At 9:22, after passing over Bogota in a salute to President Eduardo Santos, the planes headed northwest through the pass toward Palenquero on the Magdalena River. At 9:40, as the planes passed over Palenquero, the course was changed due north. The 224 miles to San Marcos, Colombia, was covered in one hour and 8 minutes, and at 10:48 the course was again changed and the planes headed directly toward Colon, Panama.

While there was a high overcast and the ground was obscured by low clouds during most of the flight, the planes remained in the clear, between two layers of clouds. An occasional glimpse of the ground through the lower clouds gave the navigators a check on their drift and position. Both radio and celestial navigation was used by the navigators, in addition to dead reckoning navigation.

The route by way of San Marcos, which is 120 miles further than the direct route from Bogota to Colon, was taken because Lieut. Torgils G. Wold, the

weather officer on the flight, predicted bad weather on the direct route. One hundred miles out of Colon, the flight was forced to detour fifty miles to the south in order to avoid a storm."

France Field was reached in three hours and forty minutes. The flight was greeted on arrival by Brigadier General George C. Brett, Commanding the 19th Wing. A reception was tendered the visiting officers from 4 to 6 p.m. at the Officers' Club at France Field.

August 10th was spent on maintenance and servicing. During the morning, the Commanding General of the Panama Canal Department, Major General David L. Stone, and General Brett, flew over from the Pacific side, and made a short flight in one of the B-17's. Very heavy rains set in during the afternoon and lasted well into the night.

In spite of the heavy rains, the field was firm for the take-off, and the weather being clear, departure from Panama was made at 8:30 on the morning of August 11th. The flight across the Caribbean was uneventful and was made through scattered clouds. A rendezvous was effected over Cienfuegos, Cuba, at one o'clock.

Following the rendezvous over Chapman Field with the XB-15, piloted by Lieut. Colonel Olds, a landing was effected at the Miami Airport at 2:45 p.m.

The flight departed from Miami at 9:30 a.m., August 12th, and proceeded by air line route to Langley Field. Detachments representing the units of the 2nd Bombardment Group were on the line upon arrival. A few words of greeting from the senior officer, a brief response by the flight commander, a few pictures taken, and the flight was over.

Lieut. Colonel Olds, in his XB-15, did not accompany the three B-17's from Miami and he arrived at Langley Field later in the afternoon.

The B-17's averaged a speed of 200 miles per hour or better for the flight to Bogota and return. From Miami to Langley Field the average speed was 210 miles per hour.

Many members of this flight participated in the epoch-making flight of the "Flying Fortresses" to Buenos Aires, Argentina, and return, last February.

The Air Corps personnel aboard Plane No. 51, the flagship, in addition to Major Meloy, pilot and flight commander, were Captains Alva L. Harvey, Ford J. Lauer, 1st Lieuts. Frederick E. Glantzberg, Edwin L. Tucker, Staff Sergeant Henry L. West, Corporals John S. Gray, Clarence D. Lake and Private Joseph H. Walsh.

In Plane No. 62, piloted by Major Harold L. George, were also Major Charles Y. Banfill, Captain Carl B. McDaniel, 1st Lieuts. William C. Bentley, William A. Matheny, Master Sergeant Floyd B. Haney, Staff Sergeant Ralph W. Spencer, Sergeant Frank B. Conner and Private 1st Class Norbert D. Flinn.

The companions of Major Caleb V. Haynes who piloted Plane No. 80, were 1st Lieuts Curtis E. LeMay, Richard S. Freeman, Torgils G. Wold, 2nd Lieut. James H. Rothrock, Technical Sergeant A. Cattarius Staff Sergeant Charles S. Guinn, Corporal James E. Sands and Private 1st Class Russell E. Junior.

Majors Meloy, George and Haynes each piloted a B-17 on the Buenos Aires flight. Other personnel who were members of that expedition, in addition to the one to Bogota, were Captain Harvey, Lieuts. Tucker, Glantzberg, Wold, LeMay, Freeman, Matheny, Technical Sergeant Cattarius, Staff Sergeant West, Corporals Lake, Sands, Privates Flinn, Walsh and Junior.

Elaborate precautions were taken to provide the crews against practically any mishap on the trip to Bogota. Safety measures included individual pneumatic life vests and jungle kits, with mosquito nets, medicine, emergency rations, drinking water, fishing hooks and lines, and other necessities. In addition to the life vests and two inflatable rubber boats, each plane has an emergency flotation system which expells the gasoline and uses the gasoline tanks to keep the plane afloat.

The latest and most up-to-date navigation equipment is installed in each plane. Gyro stabilized drift sights make it possible to take accurate drift readings over water, by dropping flares and sighting back at them. Radio compass installation permits taking radio bearings on any ground radio station within range. Each navigator is trained in celestial navigation as well as in dead reckoning and radio navigation, and can navigate by the sun or the stars. This is necessary because frequently there are times when bad weather forces the plane to fly above the clouds out of sight of land or water. At such times static is apt to interfere with accurate radio bearings, and the navigators are forced to resort to celestial navigation to determine their positions.

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MUNICIPAL OFFICIALS VISIT SELFRIDGE FIELD

Selfridge Field, Mt. Clemens, Mich., was visited on August 9th by Mayor Richard Reading, of Detroit, and Staff, and Mayor Don S. Westendorf, of Mt. Clemens. Upon arrival at the field, the officials had the opportunity of watching the Composite 27th Pursuit Squadron, commanded by Major Willis R. Taylor, in a practice formation in preparation for the anticipated October maneuvers to be held at Fort Bragg, N.C.

The party, consisting of Mayor Reading; Mr. Raymond Kelly, Detroit Corporation Counsel; Mayor Westendorf, Commissioners Englund and Longstaff and other

(Continued on page 4).

NEW BARRACKS FOR MARCH FIELD

Actual construction of new barracks at March Field, Riverside, Calif., to augment present quarters for 330 enlisted men, has begun. The structure, for which a total of $478,350 Federal funds had been allocated, is the largest building project seen at March Field for some time.

Plans and specifications for the new barracks call for a structure similar to those built a few years ago. The completion of the new barracks will relieve a crowded condition at March Field, one which has made it necessary to house many enlisted men in tents and old cantonment barracks. Its capacity will be such as to afford accommodations for new enlisted men.

The barracks will be situated on the baseball diamond in the rear of the 4th Air Base Barracks.

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CHAMPION SKEETERS VISIT MARCH FIELD

March Field, Riverside, Calif., was host to a group of Los Angeles Skeet Shooters recently. Among the visitors were Mr. S.O. Walding, the National Champion Shot, and Mr. C.H. Rapp, President of the Southern California Skeet Association, as well as members of the Red Lion, Angelus Mesa and other teams of Southern California.

One group of five visitors hit 241 targets out of a possible 250. Another group hit 236 out of a possible 250. The best score made by a 5-man group of March Field was 209 out of 250 targets. Major Bartron shot a 25 and had a high officers' score of 47 out of 50. Major Hackett was runner-up with a 24, and a total of 46 out of 50. Mr. Rapp shot 50 straight without a miss.

The March Field skeet shooters were able to pick up much information concerning form and procedure from the visitors, and evinced much interest in the guns which they used. Their most popular gun appeared the pump type, equipped with compensator; but what guns they were! Their guns were given the care which is normally given to babies. The bores and receivers were honed and kept in perfect operating condition. "Compared with their guns," declares the News Letter Correspondent, "the Army issue shotguns were old and inaccurate." He expresses the hope that there soon will be provided suitable skeet guns which will not cause Army personnel to apologize.

The shooting was done on the new March Field Skeet Range which has every facility and is considered by professionals to be the best range on the West Coast. It is equipped with electric traps, concrete walks, benches and metal ammunition holders.

NOTES ON AIR CORPS PERSONNEL

Major Edwin F. Carey, Air Corps, as announced in Special Orders of the War Department, is to be retired from active service effective August 31, 1938, by reason of disability incident to the service. Major Carey is stationed at Langley Field, Va.

The following-named officers are assigned to the Air Corps stations indicated upon the completion of their present tour of duty in the Hawaiian Department:

Major Harold W. Beaton to Langley Field, Va.

First Lieuts. Willis F. Chapman, Samuel B. Knowles, Jr., and Thomas Wildes to Kelly Field, Texas.

First Lieuts. Leighton I. Davis and Pelham D. Glassford, Jr., to Maxwell Field, Ala.

First Lieuts. Downs E. Ingram and Joseph G. Russell to Randolph Field, Texas.

First Lieut. Herbert B. Thatcher to Mitchel Field, N.Y., and to be assigned to the 97th Observation Squadron.

Major Charles T. Skow has been relieved from assignment and duty at Randolph Field, Texas, and assigned to duty at Langley Field, Va.

First Lieut. James H.C. Houston, stationed at Barksdale Field, La., is under orders for duty as a student at the Air Corps Technical School, Denver Branch, Lowry Field, Denver, Colo., to pursue the 1938-1939 photographic course, reporting not later than August 28, 1938.

MUNICIPAL OFFICIALS AT SELFRIDGE FIELD

(Continued from Page 3).

guests, were received by Major Lawrence P. Hickey, 1st Pursuit Group Commander, also Air Base Commander during the temporary absence of Colonel Henry B. Clagett. Major Hickey escorted the party on an inspection tour of the hangars and shops.

Mayor Reading commented favorably on the field in general, and was especially interested in the Instrument Repair Section of the Aero Repair, and the new P-35 airplanes. After a tour of the field, a reception was given the visiting officials at the Officers' Club. Mrs. Henry B. Clagett, wife of the Air Base Commander, and Major and Mrs. Hickey were in the receiving line.

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The work of the W.P.A. on the runways at Maxwell Field, Montgomery, Ala., has been stopped for the present. Although the runways appear to be completed, there is still considerable topping and rolling to be done. The runways are still closed to air traffic.

V-7816, A.C.

GENERAL PRATT LEAVES MAXWELL FIELD
By the News Letter Correspondent

Our beloved Commandant, Brigadier General H.C. Pratt, relinquished active command of the Air Corps Tactical School on August 7th. On that date the General departed on leave of absence, at the termination of which he and Mrs. Pratt will sail from New York on September 9th for the Philippines.

The personnel of the Air Corps Tactical School were very reluctant to see General and Mrs. Pratt leave. Both have endeared themselves to all of us and hold places of deep affection in our hearts. As our Commandant, the General won the respect and affection of each member of this command. Their graciousness, loyalty and spirit will long be remembered by each and everyone of us.

We wish them good luck, happiness, good health and many happy landings.

With General Pratt's departure, the Air Corps Tactical School will be under the able command of Colonel Albert L. Sneed, who for the past year has been our Post Executive.

The following is quoted from the Montgomery ADVERTISER of August 6th:

"City Gives Farewell Barbecue
to Maxwell Field Commandant.

More than 200 representative Montgomerians and a number of Maxwell Field officers late yesterday joined at a barbecue, at Summer's Rest, Chisholm, to do honor to Brig. Gen. Henry C. Pratt, commandant of the Army Air Corps Tactical School here since March 14, 1937, and to wish him and Mrs. Pratt continued success and happiness at the former's new command at Fort William McKinley, in the Philippines.

Gen. Pratt, referred to by J.M.Jenkins, president of the Chamber of Commerce, as 'Montgomery's very own general,' will leave with Mrs. Pratt for Washington and other points east in a few days. They will sail for the Philippines, from Brooklyn, on Sept. 9. At Fort McKinley, Gen. Pratt will be commanding officer of the 23rd Infantry Brigade.

Mr. Jenkins, master of ceremonies, told Gen. Pratt that - speaking for all the people of this community - no commanding officer at Maxwell Field so had endeared himself to the people and that his leaving was one of genuine regret. Vigorous applause by the assembly attested to the speaker's words.

Following the brief talk, Mr. Jenkins presented to Gen. and Mrs. Pratt a silver service, engraved 'from your Montgomert friends.'

In turn, Gen. Pratt expressed his and Mrs. Pratt's pleasure at having been stationed here. He assured the assembly that they needed no gift to remind them of the people of Montgomery and that, whenever opportunity presented itself, they would visit here again.

Gen. Pratt then introduced Col. Albert L. Sneed, A.C., as the able officer who would assume command at Maxwell Field upon his leaving. The General paid tribute to Col. Sneed's ability as an officer and leader. Turning then to a humorous vein, the General said he felt sure that Col. Sneed was Montgomery's most eligible bachelor.

'That,' said the General, 'is all that is wrong with him.'

In addition to his own remarks, Mr. Jenkins read two letters from dignitaries who, because of other urgent engagements, were unable to attend the barbecue. One of the letters was from Maj. General Frank McIntyre, U.S. Army, Retired, of Montgomery, who expressed regret at Gen. Pratt's leaving and wished him well. The other, from Governor Graves, read as follows:

'I desire to express to Gen. Pratt my sincere regret that an engagement which I could not overlook called me away on this occasion, and to say to the General, as I have said personally, that his leaving Maxwell Field, Montgomery, and our State, is a real loss.

'My contact with him, socially and officially, has been most delightful, and I join the other citizens of Montgomery in expressing our great admiration for him as a man and as an officer. His conduct has endeared him to those with whom he had come in contact, and I am sure I express the universal sentiments of our State and our community when I say that he will be greatly missed and that his career will be watched with sympathetic interest wherever he may be.

'Please extend to the General my personal and official regrets and bespeak for him the highest success and happiness that he will so well deserve wherever he may be.'

The barbecue, attended by many of Montgomery's outstanding business, political, civic, educational, religious and social leaders, and Army executives, was sponsored by the Chamber of Commerce. The barbecue was prepared under the direction of Mrs. J.M. Jones."

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AIR CORPS OFFICERS DETAILED AS UMPIRES

Twelve Air Corps officers, stationed at Maxwell Field, Montgomery, Ala., were detailed as umpires for the Third Army Maneuvers. They are equipped with BT-9 airplanes loaned by the Corps Area Detachment at Atlanta, Ga., and with P-6's from Maxwell Field. A detachment of the Photo Section, equipped with one of the new Photo Trailers, is on detached service at Third Army Headquarters.

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BIGGEST YEAR FOR DEPOT SUPPLY OF SAN ANTONIO AIR DEPOT

By the News Letter Correspondent

Of interest to the service of supply in particular is the fact that the San Antonio Air Depot Supply Department, under the able leadership of Major John M. Clark, Depot Supply Officer, has just completed a very busy fiscal year which required the steady grind of all personnel to accomplish.

Statistics are considered dry reading by most people, but a glance at those of the Depot Supply Department of the San Antonio Air Depot is both illuminating and gratifying to the personnel of that Department. A comparison of last year's record, the highest up to that time, with this year's shows conclusively that the Fiscal Year 1938 record marks the highest yet attained by that organization.

A comparative table is given below:

	F.Y. 1937	F.Y. 1938
Items posted to Stock Card	441,668	477,218
Requisitions Filled	555	568
Number of Items	25,445	29,536
Shipping Orders, etc.	4,077	4,692
Number of Items	10,955	11,173

Two important factors causing the upward trend of Depot Supply activities were the establishment of the Denver Branch of the Air Corps Technical School at Lowry Field, Colo., and the addition of the Arkansas National Guard to this Depot for supply and service. This increase in work was accomplished without the addition of permanent personnel by the Depot Supply Officer in effecting a reorganization in some sections of the Supply Department. By consolidating the bin cards into one unit, only four employees are now required, whereas seven were needed when the bin cards were located in each of the seven warehouses.

The Bookkeeping Machine Operators were formed into a pool, thus garanteeing that all Stock Record Units would have their work at an even level at all times. Before this was done, some sections would be far behind with their work, while others would be up and idle part of the time.

A number of employees of the Supply Department have made trips to the Materiel Division at Wright Field this past year, receiving instruction and discussing matters pertinent to their departments. In this manner it has been possible to keep in closer touch with the Division and extend better cooperation to the Air Corps at large. Upon the establishment of the Denver Branch of the Air Corps Technical School, at the request of the Commanding Officer and the Supply Officer at that station, one of the supervisors from this Depot spent a week at Lowry Field instructing the personnel there in supply matters. This promises to improve the service to the Technical School and give the Depot a better understanding of the problems peculiar to that station.

The Depot Supply Officer makes numerous trips to the stations and fields in this area during the year, thereby gaining a better insight into the needs of these stations, all of which makes for better service to them.

The last half of the Fiscal Year 1938 ended with a great increase in activity in warehousing and shipping at this Depot. All of the classifications formerly stored in Warehouse No. 9 were moved to Warehouses Nos. 10 and 11. The removal of Classification 02 from Warehouse No. 5 to the newly renovated Warehouse No. 9 was approximately one-third completed. This involved the inspection and packing of thousands of items and the moving of hundreds of tons of stock not normally included in the Monthly Activity Reports.

In connection with these moves, the Shipping Department constructed boxes as follows:

200 No. 5 storage boxes, standard.
750 No. 1 storage boxes, standard.
520 Engine cylinder boxes.
507 Generator starter boxes.

In addition,

30 new adjustable type Storage Bins and 55 Box Racks were built.
5216 Removable drawers or shelves were built and installed in warehouse bins already in use.
35 Straight ladders, and
8 Portable platform step ladders were constructed for use in warehouses.

Changes in shipping methods, i.e., the enlargement of interdepot air transport shipping and the pick-up and delivery service, by van, inaugurated by the railroads serving the Depot, made necessary a complete rearrangement of the Depot Supply Shipping Room to meet these changed methods, and the construction of a 22' x 80' loading dock, or branch Shipping Room, at the 3rd Transport Squadron, the San Antonio Air Depot being an intermediate transport terminus.

During the Fiscal Year 1938, the San Antonio Air Depot handled a total of 1,422,377 pounds of in-bound and out-bound air freight, as compared with 713,798 pounds for the Fiscal Year 1937.

The total in-bound and out-bound tonnage for the Fiscal Year 1938 was 16,388,849 pounds.

The personnel of this Department are to be complimented upon the high degrees of efficiency and accuracy with which the

(Continued on Page 14)

RESERVE OFFICERS TRAIN AT SCHOEN FIELD

The 51st Training Squadron, composed of Air Corps Reserve officers, terminated on July 30th an interesting and instructive two weeks at Schoen Field, Fort Benjamin Harrison, Indiana.

During this short active duty period, each pilot averaged 39 flying hours, and each observer 37 hours. This is more time in the air than was ever spent before during similar camps at Schoen Field. A combination of circumstances made this possible - the intense interest in flying of all the Reserve officers, coupled with perfect equipment and ideal weather conditions.

The flying activity consisted not only of the usual familiarization, formation and navigation flights, but great stress was placed on instrument flying, reconnaissance missions during which pictures of designated areas were taken and printed, and cross country navigation, using radio aids, including night cross country flights.

At the end of the camp most of the faces and noses of the Reservists were the color of dark leather, but all agreed the experience had been great. Interest has already been aroused in the possibility of including gunnery in the next year's camp, which would include the flying to and from a suitable range.

Major K.C. McGregor, Air Corps, who recently arrived at Schoen Field, was the Regular Army instructor in charge.

The officers of the 51st Training Squadron and their duties follow:

Major Charles E. Cox, Commanding Officer
1st Lieut. Donald T. Canfield, Adjutant.
Captain Fred W. Sommer, Operations Officer.
2nd Lieut. Lewis M. Sanders, Assistant Operations Officer.
2nd Lieut. Kendall Clark, Assistant Operations Officer.
Captain Elmer H. Jose, Engineering Officer.
1st Lieut. Dwight W. Brill, Assistant Engineering Officer.
Captain Charles E. Halstead, Supply Officer.
2nd Lieut. Edwin Voras, Assistant Supply Officer.

Enlisted personnel responsible for the smooth functioning of the camp include:

Staff Sergeant J.J. Stibal,
Sergeants W.S. Cavenaugh and A.S. Evans,
Corporal H. Thompson,
Privates G.C. Garcia, R.F. Jones, J.L. Kolar, P.L. Moore, W.N. Moore, W.B. Phillips, R.C. Ratts, D.A. Suddeth, F.A. Tedrow, H.S. Torrence and G.S. Wisecup.

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Air Corps Instructors are requested to forward news items on Reserve activities.

ACTIVITIES OF THE 27TH PURSUIT SQUADRON

The News Letter Correspondent of the 27th Pursuit Squadron, Selfridge Field, Mich., reports that during the Fiscal Year 1937-1938 this Squadron made considerable progress despite the fact that it was handicapped by the lack of airplanes.

During the year, 4723 hours were flown in airplanes assigned to this organization. The total pilot time for pilots while they were assigned to this organization was 7507 hours. Of this time, 296 hours were flown under the hood, 534 hours at night, 470 hours for gunnery, 18 hours for camera gun, 1250 hours for navigation, 1308 hours for unit navigation, 551 hours of combat exercises, and over 1300 hours were flown in miscellaneous flights.

Approximately 38,547 rounds of .30 and .50 caliber ammunition were expended during the year. Officers with less than two years' service received approximately 2018 hours of instruction. Each officer assigned received approximately 50 hours' instruction in topics of the day.

Enlisted men received instruction in Chemical Warfare, Airplanes and Engines, Instruments, Armament and Radio.

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OLD PILOTS AT KELLY FIELD

Kelly Field has always been known for its old and seasoned pilots. Almost all of the pilots now stationed at this field have been piloting airplanes for many years and have built up enviable reputations for safe flying for many hours. Six of the Kelly Field pilots have more than 4,000 hours solo pilot hours in Army aircraft. These pilots are Majors John V. Hart, Harvey Prosser, Walter E. Richards, Captains Harvey F. Dyer, Burton M. Hovey and Russell E. Randall.

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ENLISTED MEN TO STUDY COMMUNICATIONS

Ten enlisted men of the Air Corps are under orders to proceed to the Signal Corps School at Fort Monmouth, N.J., to pursue the radio communications course.

Five of these men, who are to report at this school on August 26, 1938, are:

Pvt. 1st Cl. Leland E. Williams, 1st Balloon Squadron, Fort Sill, Okla.

Pvts. Ralph Garrett, Headquarters Sqd.; James H. Tillery, 13th Air Base Sqd., and Harry M. Forehand, 91st School Sqd., Maxwell Field, Ala.

Pvt. 1st Cl. John O. Riggs, 2d Transport Sqd., Middletown Air Depot, Penna.

The remaining five enlisted men, who are to report on September 27, 1938, are:

Pvt. 1st Cl. Chester J. Evans, 2nd

(Continued on Page 14)

MORE RESERVE OFFICERS FOR ACTIVE DUTY

The following communication was recently forwarded by the War Department to each Corps Area Commander:

"1. It is estimated that funds will be available to place 75 additional Air Corps Reserve officers, who are not Air Corps Training Center graduates, on extended active duty with the Air Corps during the Fiscal Year 1939. It is desired that this matter be given all possible priority in order that the officers selected may report at Randolph Field on October 3, 1938, and January 5, 1939. These officers will receive a special course of advanced flying training of approximately four (4) months' duration, and upon successful completion thereof will be assigned to duty with the Air Corps. This course will include intensive military training in addition to advanced flying training. Should any of these officers fail to satisfactorily complete this course, they will not be continued on extended active duty.

2. The following will govern the selection of these officers:

a. The officer must be less than thirty-five (35) years of age.

b. Must have fifty (50) hours pilot time on the BT-9 or O-46A airplane and have completed the flying requirements of either (1) or (2) below:

(1) Minimum of 100 hours pilot time within the twelve (12) months immediately preceding;

(2) 400 hours pilot time (300 H.P. or more) during the five (5) years immediately preceding, at least fifty (50) hours of which must have been within the twelve (12) months immediately preceding.

c. Must be physically qualified on Form 64 within sixty (60) days of active duty orders:

d. Active duty will be in the grade of Second Lieutenant and for a period of two (2) years. Authorization exists for an additional three (3) years, the last two (2) years in the grade of First Lieutenant, for those recommended for additional duty.

e. Application must be submitted in duplicate on AGO Form 109 and should reach this office as early as possible.

3. It is desired that each applicant for this active duty have insurance in such amount as may be considered sufficient to properly cover his responsibilities. Government insurance in the amount of $10,000 is available upon assignment to active duty.

4. Your recommendation is requested with respect to applicants from your Corps Area by individual indorsement on each application. It is desired that no application be forwarded unless the applicant can qualify under the provisions as stated above, as no waivers will be granted. It is further desired that no application be forwarded unless the applicant has been checked by his Unit Instructor and can be recommended by him as suitable for this detail."

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TWO POPULAR OFFICERS LEAVE HAWAII

"On July 18th the 5th Group and Luke Field lost its most popular member," writes the News Letter Correspondent, referring to Colonel Millard F. Harmon, who has commanded both units for the past year and a half. He then goes on to say:

"During his (Colonel Harmon's) tour as Group and Post Commander the unit piled up a total of over 17,000 hours of aircraft time without a single major accident involving injury to personnel; a high tribute to the quality of his leadership.

Sailing also on the REPUBLIC was Brigadier General Barton K. Yount, former commander of the 18th Wing. All personnel of the Group will miss his able and sympathetic leadership.

Both officers and their families carry with them the sincere Aloha of this unit, which was demonstrated in a small way on the day of sailing by participation in a Wing Aloha Flight which included practically everything with wings in the Department. Pursuit, Attack, Reconnaissance and Bombardment units circled the REPUBLIC as she rounded Diamond Head outward bound.

On July 19th, after giving the REPUBLIC a head start of twenty hours, the Bombardment squadrons of the Group performed an interception mission on the vessel. Clearing Oahu at 0937, the Group with its B-18's made contact with vessel some 285 nautical miles to sea at 1145. Final Alohas were exchanged by radio and the Group returned to its base.

Major John I. Moore, former Post Executive Officer, takes over command of the 5th Bombardment Group and Luke Field pending the arrival of replacement for Colonel Harmon."

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FIELD TRAINING FOR 17TH AIR BASE SQDN.

Monday, July 18th, proved to be an eventful day as approximately 30 men of the Base Headquarters and 17th Air Base Squadron, Luke Field, T.H., moved to Bellows Field, Waimanalo, Oahu, T.H., to establish camp for the 12-day training period of the organization. All members of the Squadron were to fire the pistol as well as the machine gun, ground and aerial targets. Sending the men out in groups of approximately 25 men per day, the range season should terminate on July 30th.

FIRE DESTROYS HANGAR AND TWO PLANES

At Kelly Field, Texas, on the afternoon of July 20th, fire destroyed Hangar No. 23, next to the last hangar at the west end of the line. The fire was caused by the accidental contact of a B-4 type airplane with the hot exhaust pipe of a tractor being used to tow the airplane into proper parking space in the hangar.

In a few moments the blaze swept over the plane, ignited the hangar and another plane - a BT-9 North American Basic Trainer. Men in the vicinity rushed to put out the blaze with hand extinguishers, but it was too hot to get close to the planes. The blaze was so strong that most of the efforts of the Kelly Field Fire Department were devoted to protecting other nearby structures and planes until the arrival of fire apparatus from Duncan Field and San Antonio.

The hangar was a frame building of war-time construction, and most of its contents were beyond saving. Firemen gave their main attention to preventing the spread of the flames. Operations and Engineering Office records of the 64th School Squadron were completely destroyed by the fire.

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BUILDING PROGRAM STARTS AT KELLY FIELD

The construction program finally got under way at Kelly Field on July 27th, when workmen started digging holes for the foundations of eight sets of officers' quarters and nine double sets of noncommissioned officers' quarters.

This project, which will cost $520,000, is in addition to the $2,500,000 building and improvement project scheduled to get under way in several months, with Captain E.B. Dunstan, Constructing Quartermaster for San Antonio and vicinity, in charge.

This $2,500,000 project is for the construction of new barracks, officers' and noncommissioned officers' quarters, hangars, and other buildings - and is the last project to get started in the San Antonio area. Because these buildings are not considered an emergency project, the work will be delayed about three months.

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DETAILS TO THE GENERAL STAFF CORPS

The following-named Air Corps officers, now stationed at Langley Field, Va., have been detailed as members of the General Staff Corps and assigned to the General Staff with Troops and directed to report to the Commanding General, GHQ Air Force, Langley Field, Va., for duty accordingly:

Colonels Walter H. Frank, Walter G. Kilner, Lieut. Colonels Clinton W. Howard, Ralph P. Cousins and Major James P. Hodges.

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PROMOTION OF AIR CORPS OFFICERS

The following-named Air Corps officers, holding the temporary rank of Major, were given permanent promotion in that grade, with rank from August 1, 1938:

Major John Y. York, Jr.
Major Walter H. Reid
Major John B. Patrick

The following-named second lieutenants of the Air Corps were promoted to the grade of first lieutenant, with rank from August 1, 1938:

Opal E. Henderson
Daniel I. Moler
Lawrance O. Brown
Henry B. Fisher
Clayton B. Claasen
William T. Hudnell, Jr.
Harold L. Kreider
John O. Neal
Watson M. Frutchey

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NEW FLYING INSTRUCTORS AT KELLY FIELD

Eight new officers recently reported at the Advanced Flying School, Kelly Field, Texas, for duty, and five of them were given assignments as flying instructors.

First Lieuts. Richard E. Ellsworth and Kurt H. Landon, the former reporting from Mitchel Field, N.Y., and the latter from Scott Field, Belleville, Ill., were assigned as instructors in the Attack Section.

New instructors in the Pursuit Section are 1st Lieuts. Dyke F. Meyer, from Maxwell Field, Ala., and Earl F. Signer, from Scott Field.

First Lieut. Philip E. Coates, from Maxwell Field, was assigned as instructor in the Observation Section.

Of the three remaining new arrivals, Captain James F. Philips, who came from Edgewood Arsenal, Md., was assigned as Station Air Corps Inspector; 1st Lieut. Lloyd H. Tull, formerly stationed at Aberdeen Proving Ground, Md., was assigned to the 12th Air Base Squadron, and 2nd Lieut. Wilbur W. Aring, from Maxwell Field, was assigned to the 61st School Squadron.

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The entire communications section of the 31st Bombardment Squadron enrolled in the post radio school conducted at Luke Field, T.H., four nights each week, and the men are determined to master the technique of radio operation and theory before very long. The communications section chief of the 31st Squadron, Staff Sergeant Harold S. Cooper, is senior instructor of the school.

4TH AIR BASE SQDN. PHOTOGRAPHIC LABORATORY

With a history which dates back to active duty as a World War unit, known as the 23rd Photo Section, this organization was finally rendered inactive at March Field, Calif., in October, 1937, at which time it was divided into a Base Laboratory and an Aerial Photographic unit in the 38th Reconnaissance Squadron.

The 4th Air Base Photographic Laboratory functions in a highly creditable manner under the command of Major Frederick F. Christine, who has taken over this duty in addition to his assignment as Base S-4. Major Christine served with the Photographic Division of the Air Corps, A.E.F., for nearly two years during the World War and, from his long experience in all phases of photography, is well qualified to organize a base laboratory.

As tending to show the value of such an organization as a peace-time government agency, the Photo Laboratory, along with the Aerial Photographic Division of the 38th, has rendered invaluable aid to the U.S. Engineers in Los Angeles in the production of nearly 4000 mosaics of all rivers, washes, basins and bridge and highway washouts caused by floods to substantiate estimations of damage and reconstruction costs. In addition to this work, 340 miles of coastline is under process of being photographed to facilitate the study of beach erosion.

Aside from this extra work, the Photo Laboratory has been carrying on regular Air Corps projects which include considerable ground work, printing, enlarging and the photographing of a 23 by 13-mile area at the Muroc Bombing and Gunnery Range.

The Laboratory, in charge of Staff Sergeant Frank Calcagno, has a crew of ten men, who do ground photography and developing and printing. In the 38th Reconnaissance Squadron, the aerial photographers, under the direction of Lieuts. Henry K. Mooney and Paul T. Hanley, include Technical Sergeant Wm. Brees, Staff Sergeants Meeks and Brinkerhoff and Private 1st Class Clark.

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A TRIBUTE TO A SQUADRON COMMANDER

On Tuesday, August 2nd, the members of the Headquarters and Headquarters Squadron, Air Corps Technical School, Chanute Field, Rantoul, Ill., gathered in the Day Room to bid farewell, as the News Letter Correspondent puts it, "to one of the finest officers in the Army, Major Earle G. Harper, our Squadron Commander."

After a brief ceremony, the Major departed with the best wishes of all the members of the outfit. The Correspondent further states:

"It is difficult to estimate the value of the work Major Harper has done for Headquarters Squadron and Chanute Field as a whole. As Squadron Commander he took a personal interest in the welfare of each individual in his organization. The troubles of his men were his own personal worries and no reasonable request was refused. Volumes could be written on the things Major Harper has done for his men, but limited space prohibits going into that subject any further. No officer ever held a higher place in the hearts of his men than Major Harper.

The entire squadron joins the writer in saying, 'Best of luck, Major.'"

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MAXWELL FIELD'S P-12'S GO TO KELLY FIELD

The twenty-five Boeing P-12 airplanes assigned to the Air Corps Tactical School at Maxwell Field, Ala., were transferred in June to the Air Corps Advanced Flying School at Kelly Field, Texas, and were recently replaced by fourteen P-6 Pursuit planes powered by the Curtiss "Conqueror" engine. A Lockheed C-36 Transport plane has been assigned to Maxwell Field to replace the old Curtiss "Condor" C-30 Transport which is now being surveyed. The "Condor" was at one time assigned to the Office of the Secretary of War, and was also used for air mail duty. It was submerged in the flood at the Middletown Air Depot, Pa., several years ago.

Many Air Corps pilots have a great deal of affection for the old ship and will feel her loss as that of an old friend.

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MAJOR CRUMRINE LEAVES KELLY FIELD

Major Clarence E. Crumrine, Air Corps, commanding officer of the 61st School Squadron at Kelly Field, Texas, has been ordered to report for duty as a student at the Command and General Staff School, Fort Leavenworth, Kansas, to pursue a course of instruction at that institution, commencing September 1, 1938.

Preparatory to reporting at Fort Leavenworth, Major Crumrine is enjoying a month's leave of absence with his family at Yellowstone National Park.

Major Crumrine has been on duty at Kelly Field since June 4, 1935, serving in many capacities, namely: Director of Ground Training, Secretary and Public Relations Officer, Commanding Officer of the 68th Service Squadron, and Commanding Officer of the 61st School Squadron, his latest assignment.

Commissioned a second lieutenant in the Air Service on July 1, 1920, he received his appointment as Major (temporary) on October 12, 1937. He is a graduate of the Air Corps Tactical School (Class of 1935) and is rated a "Military

(Continued on Page 14).

THUNDERSTORMS

A thunderstorm is the result of violent vertical convection which occurs in air possessing marked potential instability when this instability is released by any one or combination of the following:

(a) Surface heating.
(b) Mechanical lifting due to frontal surfaces or mountains.
(3) Overrunning by air the temperature of which is such as to induce overturning.

In the summer time, practically all well-developed fronts will have associated considerable thunderstorm activity; however, these are frequently not continuous along the front. In other words, by flying parallel to fronts "holes" will frequently be found, through which the front may be safely crossed.

In general, thunderstorms become most violent over land in the late afternoon and between midnight and dawn over water areas.

The forward portion of a thunderstorm is the most violent from the point of gustiness and heaviness of precipitation.

In order to exist there must be vertical currents upward of at least 2300 feet per minute within the clouds at the higher levels. By measurement of the velocity necessary to support the larger hailstones, it is indicated that vertical velocities exist in the neighborhood of 20,000 feet per minute. Also within the rain area vertical down currents must exist in the lower levels of an order of 1500 feet per minute.

There have been measured on airplanes carrying V-G recorders accelerations of over six times gravity in thunderstorm areas and accelerations of 4 g are not at all uncommon.

The average level at which freezing conditions may be expected to begin in summer thunderstorms in this country is about 13,000 feet; the clouds themselves will generally extend to well above 20,000 feet.

Horizontal visibility in the area of heavy rain is generally reduced to a few hundred yards.

While conclusive evidence is lacking, it is not believed that lightning itself constitutes a serious hazard. Lightning has caused frequent minor damage to aircraft, such as burning off radio antennae and small holes in the metal skin and propellers, etc., but there is no authenticated record of the destruction of an airplane in the air by this cause.

Anyone desiring to read a rather complete treatment of thunderstorms in not too technical language is referred to Chapter 17, Physics of the Air, by Humphreys; a book which may be found in every Air Corps Weather Station.

SCHOOL FOR CHILDREN AT LANGLEY AIR BASE

In spite of the announced delay in awarding the contract for the new school at Langley Field, actual construction is expected to get underway late in August.

Bids were opened on July 26th in the office of Lieut. Clarence Renshaw, construction quartermaster at the air base, and of the five proposals submitted the Virginia Engineering Company's bid was lowest. However, other firms submitted figures, which were late, contending that rain caused the delay.

The new structure will occupy the site on Dodd Boulevard, between Thompson and Bowen Avenues, just opposite the air base chapel. The approximate cost will be $75,000.

Plans which were submitted show a one-story brick building which will be fireproof, sound-proof, and modern throughout. Air conditioning will be used the year round.

Six classrooms, one auditorium and one assembly room have been designated, in addition to a teachers' room, office and library.

It was originally thought that actual work would start about August 10th. However, with the pending delay, the exact time is not known, but it is expected that officials will make every effort to get underway as soon as possible, in order to provide children of the air base with adequate and modern school facilities.

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COL. GILKESON LEAVES 8TH PURSUIT GROUP

The officers and men of the 8th Pursuit Group, Langley Field, Va., regret deeply the loss by transfer of their commanding officer of the past three years. The News Letter Correspondent states: "The assignment of Lieutenant Colonel A.H. Gilkeson to the Command and General Staff School takes away from us a capable leader, respected and liked by the entire Group.

Lieut. Colonel W. E. Kepner has assumed command of the Group, and the same high standard of training is anticipated."

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MAINTENANCE INSTRUCTION FOR CREW OF B-15

Noncommissioned officers of the 49th Bombardment Squadron, Langley Field, Va., Technical Sgt. Cattarius, Staff Sergeants Heldt, Spicer, Hines, Corporals Sands and Itnyer, the crew for the B-15 Bombardment airplane, recently departed for Wright Field, Ohio, to take the preliminary course of instruction in maintenance prior to the delivery of that airplane to Langley Field.

V-7816, A.C.

DEMAND FOR MAINTENANCE TECHNICIANS

With the rapid expansion of the Air Corps in recent years and the increasingly complicated equipment procured there has been a corresponding increase in the demand for properly trained maintenance technicians.

Chanute Field personnel, both Army and civilian, responsible for training selected Air Corps Technical School students, have made every effort to increase the capacity of the school.

Following the transfer to Lowry Field, Denver, Colorado, of the Photographic and Armament Departments, additional hangars were made available for the Department of Mechanics. Remodeling of the buildings was completed immediately. The propeller laboratories were moved into one building, and the electrical laboratory moved into another, increasing their capacity to twelve specialists and twenty-five airplane mechanics each.

Other courses within the mechanics department have likewise benefited. More floor space was allocated to the metal workers branch and machinist branch, thus permitting a small increase in the length of these courses and an increase in the number of students that may be accommodated.

A survey of Air Corps requirements made a year ago disclosed the desirability of abandoning the combined welders-sheet metal work and welding courses. It enables the student to graduate and return to his home station several weeks earlier, thus increasing the number of potential graduates.

The Air Corps Materiel Division is lending splendid cooperation in securing equipment for the school.

The Air Corps Technical School at Chanute Field announces the addition of a course in "Air Corps Fundamentals" for the 1938-1939 school year. It will be a forty-hour course and will include instruction in the following subjects:

(1) The Air Corps system of airplane and equipment maintenance.
(2) Purpose and use of Air Corps technical publications, stock lists, drawings and forms.
(3) Airplane nomenclature.
(4) Fire regulations and the care and use of fire extinguishers.
(5) Safety rules for Air Corps shops and hangars.
(6) General instructions relative to handling airplanes in and around the hangar.
(7) Parachute instruction (general).

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Captain James E. Parker, Air Corps, received a temporary appointment to the grade of Major in the Air Corps, with rank from August 5, 1938.

RETIREMENT OF OLDEST DEPOT EMPLOYEE

By the News Letter Correspondent

The familiar face of the oldest member of the civilian personnel at the San Antonio Air Depot, Duncan Field, Texas, will be greatly missed since the retirement on July 31st of Clarence A. Knowlton, Sr., Supply Clerk in the Aero Repair Section of the Engineering Department. In point of service with aviation supply in San Antonio, Mr. Knowlton, who is 70 years of age, was the oldest employee at the San Antonio Depot upon his retirement. He has been a resident of San Antonio since February, 1891, coming here from Massachusetts, where he served as a post office clerk and letter carrier in Boston and its vicinity.

For 19 years, from 1893 to 1912, Mr. Knowlton was station agent for the old San Antonio and Aransas Pass Railroad in San Antonio. From 1914 to 1916 he was employed with the War Department, Engineer Department at Large, as Receiver of Metals, Surveyman, and Inspector, at Galveston, Texas. On June 4, 1917, he again entered the civil service, continuing uninterruptedly until his retirement. Upon his retirement he was the only remaining employee at this Depot of the seven or eight who started with the small supply depot of the Aviation Section, Signal Corps, which was established in 1917 as a small warehouse at 1903 South Flores Street in San Antonio.

This warehouse was later moved to Duncan Field (old Kelly Field No. 1), became the Aviation General Supply Depot and subsequently the Depot Supply Department of the San Antonio Air Depot.

For some 13 years, Mr. Knowlton was chief clerk of the Depot Supply Department and of the former Air Corps Station Supply Department of this Depot. The week before his retirement, several hundred employees of the Depot presented him with an outboard kicker for a boat which he has on Medina Lake, and on July 28th he was guest at a banquet of Local No. 28, National Federation of Federal Employees, of which he has been a member since 1917, and which presented him with a gold badge for meritorious service.

The only plans which "Pop" Knowlton, as he is affectionately known to the employees, has for the immediate future are for a good rest, boating and fishing at Medina Lake. He and Mrs. Knowlton at present reside in South San Antonio, and they have the sincerest wishes of all personnel of the Depot in this well-earned retirement.

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Captain Don McNeal, Air Corps, received a temporary appointment to the grade of Major in the Air Corps, with rank from June 27, 1938.

FIRST WING MANEUVERS AT GRAY FIELD

Brigadier General Delos C. Emmons, commanding the First Wing, General Headquarters Air Force, alighted at 3:00 p.m. on August 8th at Gray Field, Fort Lewis, Washington, from the B-18 Army Bombardment plane in which he had flown from his headquarters at March Field, Calif. Upon his arrival, General Emmons was greeted by Governor Clarence D. Martin, of the State of Washington; Major General Walter C. Sweeney, commanding Fort Lewis and the 3rd Division, and many other civil and military dignitaries assembled at the flying field to welcome officially the General and his command to the Northwest. An eleven-gun salute was fired upon the General's arrival by a battery of 75 mm. guns from the 10th Field Artillery.

The airplanes of the First Wing, GHQ Air Force, began taking off from their stations at March and Hamilton Fields, California, at 6:20 o'clock on the morning of August 8th, with the first units, belonging to the 19th Bombardment Group, under the command of Lieut. Colonel H.A. Burwell, Air Corps, arriving at Fort Lewis from March Field shortly before 12:00 noon. The remaining elements of the First Wing continued to arrive in groups of three or four planes throughout the afternoon. All planes of the organization assembled at Gray Field at 4:00 p.m.

The organizations arriving at Gray Field during the day consisted of the First Wing Headquarters and Headquarters Squadron, the 38th Reconnaissance Squadron, the 88th Reconnaissance Squadron, and the 19th Bombardment Group. Approximately 300 officers and men and 40 airplanes were involved in the movement, each plane carrying a crew of two officers and nine enlisted men. The pilots reported good weather from California.

While at Fort Lewis, the planes will carry on extensive maneuvers, including long and short range reconnaissance problems and bombing demonstrations. The first exercise, scheduled for the morning of August 9th, was to consist of a reconnaissance of principal cities and airdromes within the operating area. Twenty B-18 type planes, under the command of Lieut. Colonel H.A. Burwell, were slated to take off from Gray Field at 9:30 a.m., on August 9th, on the reconnaissance, the route of the flight being Tacoma, Washington; Olympia, Washington; Vancouver, Washington; Portland, Oregon; Pendleton, Oregon; Walla Walla, Spokane, Ellensburg, Seattle, Bremerton and Tacoma, Washington, and Gray Field. The total distance involved was estimated at about 750 miles.

Colonel Burwell announced that the planes would fly in formation over each of the cities on their itinerary.

A PROMOTION FOR MAJOR CARL A. COVER

Announcement was recently made by Mr. Donald W. Douglas, President of the Douglas Aircraft Company, Inc., Santa Monica, Calif., of the advancement of Major Carl Cover, Director of Sales and Chief Pilot of the Company, to the position of Senior Vice President, formerly held by the late Harry H. Wetzel.

In announcing Major Cover's elevation to his new post, Mr. Douglas stated that his company is fortunate in having among its executives a man of the ability and experience of Major Cover, and he added: "In the air or in the shop, no man knows more about planes than Major Cover."

Carl Cover, who holds a commission as Major, Specialist Reserve, has instructed Army instructors during the War, and subsequently had charge of inspection, assembly and repair of Army aircraft at the various Army posts in the United States and in Hawaii.

Rivaling in importance the steady production of Bombardment airplanes by the Douglas Company have been the flight tests of the world-famous DC-4 airplane, now universally recognized as one outstanding example of four-engined land airplanes. All through the months of June and July, the plane was subjected to severe scientific tests under the personal piloting and direction of Major Cover. These tests have been declared by Arthur E. Raymond, Chief Engineer, highly satisfactory.

Major Cover, who entered the Army during the World War, being commissioned a second lieutenant in the Air Service, National Army, on June 22, 1918, resigned from the service on February 4, 1930, for the purpose of entering the field of commercial aviation. He was considered one of the outstanding engineering officers of the Air Corps. Particularly successful as an organizer and as an executive, he displayed remarkable ability in training personnel along mechanical and industrial lines.

His total flying time, both in military and commercial aviation, has by now probably passed the 6,000-hour mark.

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The Los Angeles Municipal Airport is being improved at the present time to the extent of $450,000 under WPA with additional sewer lines, improvement of the main east-west runway to a length of 4700 feet by 300 feet wide, and the installation of flush type lights.

Grading and drainage work is also involved in this 4-month program, which will keep 1,500 men employed.

Arrangements for the establishment of a radio range beacon for airway control at this airport are under way. This will be located approximately one mile east of the northeast corner of the field.

JUST A MEMORY

Five years ago, on the evening of August 27, 1933, Captain Ernest E. Harmon, Air Corps, of the 9th Bombardment Group, Mitchel Field, L.I., New York, was killed when the airplane he was piloting crashed during the course of a night flight from Easton, Md., to Mitchel Field. All indications pointed to the fact that, encountering a fog during the course of his flight, he remained aloft until his fuel supply became exhausted, and he then jumped with his parachute, since his body was found quite some distance from the wrecked plane.

A reader of the Air Corps News Letter submitted the tribute to the deceased officer which is given below. He states he is a former enlisted man who was stationed at Mitchel Field and who had the pleasure and opportunity of working with Captain Harmon at various times and considered him a personal friend. He adds that he discovered this literary effort just recently while going through some of his papers, and expresses the thought that its publication at this time will serve to bring back to mind one of the finest officers he had had occasion to meet in his eight years in the Air Corps - rough and ready "Tiny," - whose friends in the Air Corps and other branches of the service, as well as in civil life, were legion.

Retrospect

"Tiny," old friend, I wish that you knew
How all the boys at the field miss you,
Your booming voice and your happy smile,
Your glad "Hello" to both rank and file,
Your outstretched hand and encouraging word
And an optimism so undeterred.
But the one thing we can ne'er replace
Is that boyish grin upon your face.

And I'll wager, if only us mortals could see,
That you're leading the Flight in Eternity.

- William Joseph Collins,
Schenectady, N.Y.

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Announcement was recently made by the Acting Secretary of War, the Honorable Louis Johnson, that airplanes of the GHQ Air Force would be sent to Los Angeles, Calif., in September, in order to participate in the American Legion National Convention Parade to be held there on September 20, 1938.

Colonel Johnson is Past National Commander of the American Legion, serving as the head of this organization in 1932.

BOY SCOUTS ENJOY BREEZE FROM PROPELLERS

The personnel of Selfridge Field, Mich., especially 2nd Lieuts. Harold E. Kofahl and Clinton C. Wasem, Air Res., were highly complimented by the Port Huron TIMES-HERALD for the splendid treatment they accorded the Port Huron Boy Scouts upon their visit to the Air Corps field on August 4th.

The Boy Scouts were conducted on a tour of Selfridge Field by Lieuts. Kofahl and Wasem, and later they were taken to the Picnic House on the lake where they ate their lunches. The Scouts had a fine time watching the planes, and it being a very hot day they took great delight in standing back where the breeze from the propellers would cool them off.

The Boy Scouts were loud in their praise of Colonel Henry B. Clagett, the Selfridge Air Base Commander; Lieuts. Kofahl and Wasem, and Bob Winslow, Past President of the Kiwanis Club of Mount Clemens, who made arrangements with Colonel Clagett for their visit to the field.

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Depot Supply of the San Antonio Air Depot

(Continued from Page 6).

property account is administered. Yes, altogether, it was a big year for the Depot Supply Department of the San Antonio Air Depot.

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Enlisted Men to Study Communications

(Continued from Page 7)

Transport Squadron, Middletown Air Depot, Middletown, Pa.

Privates Clifford W. Kropp, Kenneth W. Bradd, Melvin C. Staerk and Private 1st Class Artie J. Adkins, all of the 3rd Observation Squadron, Langley Field, Va.

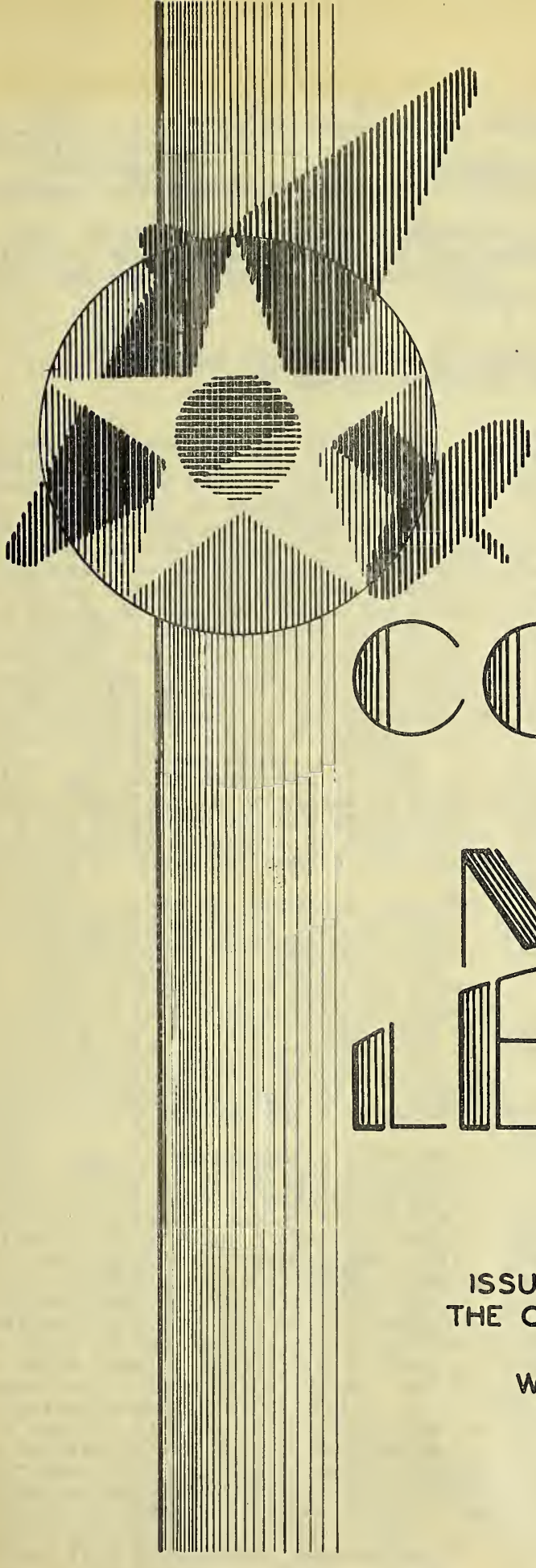
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Major Crumrine (From Page 10).

Airplane Pilot and Airplane Observer. He holds the Distinguished Flying Cross for his participation in 1920 in the flight of Army planes from New York to Nome, Alaska, and return to Washington, D.C.

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Selfridge Field, Mich., was highly honored and pleased Tuesday, August 9th, when, with little or no advance information, Major General Frank M. Andrews, GHQ Air Force Commander, dropped out of a clear sky and landed onto the field. General Andrews' visit, however, was not an official one, and, after a brief stop for refueling his plane, the General proceeded to Chanute Field, Rantoul, Ill. General Andrews was flying a Douglas C-32.



AIR CORPS NEWS LETTER

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Dunnington

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VOL. XXI A I R C O R P S N E W S L E T T E R NO. 17

Information Division
Air Corps

September 1, 1938

Munitions Building
Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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PRESIDENT ROOSEVELT VISITS DEFENSE ESTABLISHMENTS IN PANAMA

By Captain Robert F. Tate, Air Corps

Brown from cruising and fishing in tropical waters, President Roosevelt, appearing in the best of health and spirits, made a tour of inspection of both Army and Navy defense establishments of the Panama Atlantic Sector on August 5th.

Welcomed into Balboa harbor the previous day by Pursuit, Attack and Bombardment planes of the 19th Wing, the President boarded a special train of the Panama Railroad early in the afternoon of August 5th. With him, in addition to his own party, traveled President Juan Demostenes Arosemena, of the Republic of Panama; Colonel Clarence S. Ridley, Governor of the Panama Canal, and many senior Department Naval and Military officers. Arriving in Cristobal at 4:15 p.m., the President and his party were whisked away by a caravan of cars, ably protected by Chief Calloway's motorcycle patrolmen.

I wish to leave Mr. President enroute to France Field while we tell of the neat planning that preceded his visit. The entire route to be traversed was gone over in detail, not once but several times, to establish a reliable speed and timing for the tour. Commanding officers were made conversant with the expected time of arrival, honors to be rendered, formations expected of troops, and the routes through their respective posts.

The foregoing paragraph is injected rather tritely to prove that a properly planned event, even as auspicious as a Presidential visit, may go off with a minimum of flurry and a measured precision nothing short of perfection. Airplanes of France Field returning from a Group tactical mission flew over the Presidential party just as it boarded the train on the Pacific side, yet there was ample time to land, line up the planes, eat a late lunch, dress, and be in review formation by 4:35 p.m.

At exactly 4:35 p.m., the Presidential car arrived at the France Field gate. Flourishes, "To the Color" and a 21-gun salute preceded the greeting and welcome by Lieut. Colonel William O. Butler, commanding officer, France Field, and Colonel Fred H. Coleman, commanding officer of the Panama Air Depot. Both were invited into the President's car, and the procession moved on down the main road through two lines of the "Guard of Honor" at salute, and turned left to the airdrome. Here the remainder of the troops of the 6th Bombardment Group, augmented by those of the Panama Air Depot, were formed in front of the line of airplanes in group review formation. The President trooped the line both down and back as the troops remained at "present arms," and then followed a course through the quarters and barracks areas and back to the gate.

Here occurred one of those things worthy of relating. As Lieut. Colonel Butler and Colonel Coleman left the car, the latter said: "Mr. President, if I am not speaking out of turn, would you mind delivering my warm personal greetings to Colonel Watson, your military aide? I haven't seen him in many years."

To which the President replied with a smile: "Step back to the car just behind us, Colonel, and give them yourself. We are in no big hurry."

And so in a few moments, with a friendly smile, a wave of the hand, he was on his way, with the blaring of bugles and booming of gun.

The President's itinerary included the Fleet Air Base, Submarine Base, Fort Randolph, Fort Davis and then to the locks at Gatun, there to board the "Houston."

It was on his way back from Fort Randolph, enroute to Fort Favis, on the public road past France Field that a memorable incident occurred. All of the France Field soldiers had been marched back to barracks and dismissed. On talking it over, the consensus of opinion was that none had <u>really</u> seen the President at all, what with the fleeting glimpse they were able to register while standing at rigid attention. And so out to the railroad tracks lining the Randolph road went six hundred soldiers to catch a "real look" - not an officer in sight. Would our previous show of discipline be ruined? The President's car came abreast at a goodly clip. Six hundred soldiers came to uncommanded salutes, and as the right flank was passed, spon-

taneously and as one man they uncovered and gave a deafening cheer. Mr. Roosevelt looked back, vigorously waved his hat in acknowledgment and was still waving it as his car passed out of sight.

Mr. Roosevelt may forget that the 7th Squadron hangar was under repair on August 5, 1938; he may forget the really excellent flying done on his behalf; he may even forget that the troops looked unusually snappy standing formation in sun helmets for the first time, but I believe the spontaneous burst of approving cheers from the throats of six hundred France Field soldiers touched a note that he will remember.

At any rate, Mr. President, we enjoyed your visit and were honored by it. We give you best wishes and renew our pledge of everlasting loyalty to our Commander-in-Chief.

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AERIAL REVIEW FOR THE PRESIDENT

On August 4th, at 1:00 p.m., the entire 19th Wing passed in review on the port beam of the Cruiser U.S.S. HOUSTON, as she steamed into the Pacific entrance of the Panama Canal. Aboard her was the President of the United States, returning from a vacation cruise in the vicinity of the Galapagos Islands.

For two days the President and his party remained on the Isthmus, crossing to the Atlantic side by train on August 5th. Brigadier General George H. Brett, Commander of the 19th Wing, was among those officials selected to accompany the President on automobile tours of inspection during his visit.

On the evening of August 5th, the President boarded the HOUSTON at Gatun Locks, and the Cruiser steamed out through Colon Breakwater on her journey home.

According to statements issued to the press, President Roosevelt was entirely pleased with Army and Navy activities within the Canal Zone.

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BOGOTA FLIGHT LANDS AT FRANCE FIELD

The flight of three Boeing B-17's which visited Bogota, Colombia, during the inaugural ceremonies of President Eduardo Santos, landed at France Field, Panama Canal Zone, at 12:50 p.m., on August 9th on their return flight to the States. The distance of 680 miles between Bogota and France Field was covered at an average speed of 207 miles an hour, the elapsed time being three hours and seventeen minutes.

The Bombing planes remained on ths Isthmus for two days, several of the officers of the flight visiting both Air Corps posts in the Panama Canal Department. With Miami as their first stop, the planes took off early on August 11th.

PERSONNEL CHANGES AT ALBROOK FIELD

Lieut. Colonel Willis H. Hale, Air Corps, assumed command of Albrook Field, Panama Canal Zone, on July 11th, succeeding Lieut. Colonel Benjamin G. Weir, who was assigned as Executive Officer of the 19th Wing.

The following changes in the assignment of commissioned personnel at Albrook Field took effect on July 20th:

To the 15th Air Base Squadron: Captain Manning E. Tillery, from Base Headquarters; 1st Lieut. Robert O. Cork, from the 74th Attack Squadron; 2nd Lieut. William W. Jones, from the 29th Pursuit Squadron; 2nd Lieut. George P. Champion from the 74th Attack Squadron; 2nd Lieut. Frank W. Gillespie, from the 24th Pursuit Squadron.

To the 74th Attack Squadron: Captain Edgar A. Sirmyer, from the 15th Air Base Squadron, and to assume command; 1st Lieuts. Kenneth R. Crosher, from Headquarters, 16th Pursuit Group; Cyrus W. Kitchens, Jr. (Air Reserve) from the 15th Air Base Squadron.

To the 24th Pursuit Squadron: 1st Lieut. Stephen B. Mack, from the 15th Air Base Squadron; 2nd Lieut. Joseph H. Paul, Air Reserve, from 15th Air Base Squadron.

To the 29th Pursuit Squadron: 1st Lieut. Charles B. Winkle, from Base Headquarters; 2nd Lieut. Sam Maddux, Jr., from the 24th Pursuit Squadron.

To Headquarters, 16th Pursuit Group: 1st Lieut. Millard Lewis, from the 24th Pursuit Squadron.

To 44th Reconnaissance Squadron: 1st Lieut. Edward H. Underhill, from the command of the 24th Pursuit Squadron.

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METEOROLOGICAL TRAINING FOR ENLISTED MEN

The following-named enlisted men of the Air Corps will be sent, without loss of grade or rating, by military aircraft if practicable, otherwise by rail, to the Air Corps Weather School, Patterson Field, Fairfield, Ohio, to report not later than September 12, 1938, for the forecasters course, commencing on that date:

First Weather Region

Corporal Lynn H. Robson and Private First Class Jacob Follmer, from Hamilton Field, Calif.

Private First Class Edward O. Smith, Gray Field, Fort Lewis, Wash.

Private First Class Patrick C. Orum, March Field, Calif.

Second Weather Region

Master Sergeant Frederick A. Matchinski, Langley Field, Va.

Staff Sergeant Louis D. Laurin, Sergeants Walter Pikula and John A. Kapral, from Patterson Field, Ohio.

(Continued on Page 3).

30-TON BOMBER REACHES LANGLEY FIELD

The GHQ Air Force acquired a new and formidable weapon of the air on the morning of August 6th, when a B-15 four-engined Bomber was delivered to the 2nd Bombardment Group at Langley Field, Va.

This mighty leviathan of the air is the newest and largest Bombardment airplane now possessed by the United States Army Air Corps and has a wing spread of over 150 feet, with a weight of 30 tons, and is similar in many respects to the well known B-17's, popularly called "Flying Fortresses."

The B-15 is equipped with four 1,000-horsepower engines, six machine gun placements, a refrigeration plant, toilet facilities and a kitchenette. While information regarding its top speed has not been released, it is described as "the most powerful fighting ship in the world."

The B-15 was delivered to Langley Field by a crew of the Second Bombardment Group, who spent some time at Wright Field, Ohio, familiarizing themselves with the latest army Bomber. Under the command of Lieut. Colonel Olds, the group left Wright Field early on the morning of August 6th.

Others in the crew included Major Edwin R. McReynolds, engineer pilot; Captain Robert F. Travis, navigator; Staff Sergeants James H. Boyles, William J. Heldt, Harry L. Hines, David L. Spicer, John Piper and Sergeant Avrill Foreman, mechanics, and Private 1st Class William A. Bristor, radio operator.

Upon arrival at the Peninsula airdrome at 11:24 o'clock, the crew of the ship was greeted by various high ranking Army officers, who proceeded to inspect the latest and most modern Bomber.

The B-15 exemplifies the tremendous strides made by the aeronautical industry and the engineers of the Army Air Corps in the design and construction of the most efficient fighting unit in the world.

Little imagination is required to visualize what a potent weapon a fleet of these modern flying fortresses would be in the defense of the United States.

Colonel Olds and the crew expressed themselves as highly pleased with the performance of the plane on the flight from Wright Field.

It was announced at Langley Field that the B-15 would be placed in service along with the B-17's, three of which recently returned from a "good will" flight to Bogota, Colombia, South America.

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During July, the Engineering Department of the San Antonio Air Depot, Duncan Field, Texas, overhauled 13 airplanes and 67 engines, and repaired 46 airplanes and 22 engines.

CONSTRUCTION STARTS AT CHANUTE FIELD

Excavating for the foundations of new buildings to be constructed at Chanute Field, Rantoul, Ill., is progressing rapidly. To date, contracts have been closed for the foundations only of two school hangars, an Air Corps warehouse, a Quartermaster warehouse, and the Noncommissioned Officers' Quarters. As plans are completed and bids received, contracts will be let for other foundations and super-structures. Thus far, three contractors have been awarded contracts. The Illinois Central Railroad has completed the spur track necessary to serve the field at its new location.

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BASIC COMBAT PLANES FOR CHANUTE FIELD

Four new basic combat airplanes were recently received at Chanute Field, Rantoul, Ill. Captain George H. Steel, Lieuts. Albert Boyd, Franklin S. Henley and O.E. Henderson made the trip to the factory of the North American Aviation, Inc., at Inglewood, Calif., to ferry these planes to the field.

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Meteorological Training for Enlisted Men

(Continued from Page 2)

Sergeant Ambrose L. Koering, Fort Knox, Ky.

Sergeant Stephen H. Martonak, Fort Benning, Ga.

Corporal Franklin P. Finnicum, Middletown Air Depot, Pa.

Corporal Richard H. Miller, Selfridge Field, Mich.

Corporal Linden R. Shoemaker, Aberdeen Proving Ground, Md.

Corporal Carl E. Wagner, Chanute Field, Ill.

Private Oscar H. True, Scott Field, Ill.

Private First Class George R. Mills, Mitchel Field, N.Y.

Third Weather Region

Sergeant Laurier LaMontagne, Dryden, Texas.

Sergeant Henry L. Watters and Private First Class Albert P.H. Heck, Barksdale Field, La.

Corporal August W. Throgmorton, Randolph Field, Texas.

Private First Class Thomas C. Cobb, Jr., Kelly Field, Texas.

Private First Class Odell J. Harrison, Hensley Field, Texas.

Private First Class Albert J. Wilber, Fort Leavenworth, Kansas.

Private First Class Harold W. Zercher, Jr., Maxwell Field, Ala.

Private First Class William E. Zimmerman, Fort Riley, Kansas.

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GENERAL OFFICERS INSPECT KELLY FIELD

Brigadier General George C. Marshall, Chief of the War Plans Division of the War Department General Staff, and Major General Frank M. Andrews, commanding the GHQ Air Force, while making a tour of Air Corps stations, arrived at the Air Corps Training Center on August 16th and paid a visit to Kelly Field on the morning of the 17th, during which an inspection of the post was made. After lunching at the Officers' Club, they departed for Randolph Field, via Duncan Field - where they spent a short time.

Brigadier General Barton K. Yount, Commanding General of the Air Corps Training Center, accompanied by Major John R. Morgan, Air Corps, visited Kelly Field on the morning of August 16th. While at Kelly Field, General Yount, accompanied by Colonel Frank D. Lackland, Commandant of the Air Corps Advanced Flying School, inspected various activities, including the Cadet Detachment barracks, Attack, Bombardment, Observation and Pursuit Sections, and the starting of the new construction project at the Advanced Flying School.

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NEW OFFICER PERSONNEL AT KELLY FIELD

The following-named Air Corps officers recently reported at the Advanced Flying School at Kelly Field, Texas, and were assigned to organizations or duties as indicated:

Captain James F. Phillips, Station Inspector.

Captain Elmer T. Rundquist, Squadron Commander, 61st School Squadron.

First Lieut. Lloyd H. Tull, Mess, Supply, Parachute, and Assistant Armament and Ordnance Officer of the 12th Air Base Squadron.

First Lieuts. Dyke F. Meyer, Earl F. Signer and 2nd Lieut. Wilbur W. Aring, Flying Instructors, Pursuit Section.

First Lieuts. Richard E. Ellsworth and Kurt M. Landon, Flying Instructors, Attack Section.

First Lieut. William J. Holzapfel, Flying Instructor, Observation Section.

First Lieut. William L. Lee reported from the Philippine Department, where he was on the staff of General Douglas MacArthur, Military Adviser to the Philippine Government, as Acting Chief of the Philippine Army Air Corps. While on this duty, Lieut. Lee was responsible for the initial organization of the Philippine Army Air Corps and the training of its first pilots. He has been assigned to the 12th Air Base Squadron.

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BARKSDALE FLYERS BASE AT DUNCAN FIELD

During the recent 3rd Army Maneuvers in the vicinity of San Antonio, Texas, the San Antonio Air Depot, Duncan Field, was host from August 13th to 17th to a group of 18 officers and 18 enlisted men, commanded by Major A.C. Strickland, of the Third Attack Group, GHQ Air Force, Barksdale Field, La. The Attackers with their A-17A planes were housed at Duncan Field while participating as an air echelon during the Maneuvers.

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ACTIVITIES AT LUKE FIELD, HAWAII

Friday, July 29th, found the Base Headquarters and 17th Air Base Squadron, breaking camp at Bellows Field, Waimanalo, relinquishing possession to the 72nd Bombardment Squadron as they concluded their 1938 field training period. During the training period at Bellows Field the entire organization fired for record with the automatic pistol, and fired approximately 100 rounds per man with the ground machine gun. The anti-aircraft course was also fired by several men.

In the 4th Reconnaissance Squadron, ground instruction and general concentration on all school work were in effect during July. All the Reserve officers of the organization were hard at work studying for the examination for Regular commissions which took place on August 2nd and 3rd. "Their's has been no half-hearted attempt," says the News Letter Correspondent, "but a conscientious and determined one, and it is believed that they all have excellent chances to stand high in the list of competition. Here's good luck to them!"

The Engineering Section of the 4th Reconnaissance Squadron has been studying religiously on various journeymen examinations, as have the Communications and Armament Sections. The men have entered into this enthusiastically and the results will undoubtedly be noticed in their future work.

The 23rd Bombardment Squadron participated in the Group interception problem on July 19th, in which the U.S. Army Transport REPUBLIC, carrying Brigadier General Barton K. Yount and Colonel Millard F. Harmon, Air Corps, was the objective. Twenty-four hours after the transport had left Honolulu, the B-18 airplanes of the 5th Bombardment Group staged an aerial review over the vessel in honor of the departing officers. The mission was carefully planned, and all squadrons received the maximum amount of training involved.

In the quarterly load test held the latter part of July, no outstanding difficulties were encountered in putting the B-18's through their paces. It is stated that the Group is making the most of the new equipment it now possesses.

NON-STOP COAST TO COAST FLIGHT FOR B-18

Prevailing winds aided the B-18 Bomber on the first transcontinental non-stop flight ever made in a craft of this type. Taking off from Hamilton Field, Calif., on August 19th, the plane landed at Mitchel Field, L.I., New York, 15 hours and 38 minutes later.

The Bombardment plane was piloted by Lieut. John G. Armstrong, of the 11th Bombardment Squadron, Hamilton Field. Lieut. David H. Walker was the co-pilot; Private C.E. Dysinger, mechanic, and Private D.L. Byerly, radio operator. The crew used oxygen masks most of the way, as the flight was made at a high altitude. The distance involved was 2570 miles.

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STUDENT OFFICERS AT A.C. TECHNICAL SCHOOL

The following-named officers of the Air Corps, Marine Corps and the U.S. Coast Guard are pursuing courses of instruction at the Air Corps Technical School at Chanute Field, Rantoul, Ill.:

Maintenance Engineering Course
Air Corps officers

Captain John J. Morrow, from Hamilton Field, Calif.

1st Lieuts. Millard C. Young and John M. Hutchison, from Mitchel Field, N.Y.

1st Lieuts. Dawson S. Moseley, Jr., Paul T. Hanley, Elvin S. Ligon and Clair L. Wood, March Field, Calif.

1st Lieuts. Arnold T. Johnson and Harold L. Kreider, Selfridge Field, Mich.

1st Lieuts. Joseph B. Stanley and Harry Coursey, Langley Field, Va.

2nd Lieut. Homer A. Boushey, Jr., Fort Lewis, Wash.

Marine Corps officer

Captain Booker C. Batterton, Quantico, Va.

Coast Guard officers

Lieuts. E.E. Fahey, Biloxi, Miss.; C.L. Harding, East Hartford, Conn.; William Schissler, St. Petersburg, Fla., and Lieut. (jg) L.H. Seeger, Cape May, New Jersey.

Communications Course
Air Corps officers

1st Lieuts. William M. Canterbury and Richard A. Legg, Philippine Department.

1st Lieuts. Albert T. Wilson, Jr., and Carl Swyter, March Field, Calif.

1st Lieuts. Glenn C. Thompson, Richard C. Weller and 2nd Lieut. Paul H. Dane from Langley Field, Va.

2nd Lieut. Seward W. Hulse, Jr., Kelly Field, Texas.

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Having been found by an Army retiring board incapacitated for active service due to disability incident thereto, Captain David M. Ramsay, Air Corps, is retired from active service, effective August 31, 1938.

NEW TYPE OF OXYGEN MASK

An article in a recent issue of an aviation journal is to the effect that a new type high altitude oxygen mask, designed by three physicians at Rochester, Minn., has been called "completely successful" following extensive flight tests, and that announcement was made by Northwest Airlines that it will equip all its transports with the new masks by the fall of this year. While these masks will be used to prevent pilot fatigue, they will also be necessary for passengers.

Final tests on the mask were made during the course of a flight in a Northwest Airlines' Lockheed from Minneapolis, Minn., to Burbank, Calif. Personnel of this airline volunteered as subjects for the tests.

Dr. W.R. Lovelace, in cooperation with Dr. W.M. Boothby and Dr. A.H. Bulbulian, developed the new type of mask.

Advantages possessed by the new type of mask lie in the fact that it requires much less oxygen, as little as one-tenth as much as apparatus now in general use. This not only tends to reduce the amount of oxygen required to be carried on airplanes but cuts down the weight element.

An important feature in the design of the mask is that it leaves the mouth uncovered, permitting pilots to use standare radio equipment. The mask is of molded rubber, consisting of a nosepiece, resembling an old fashioned football noseguard, and a molded rubber tube which forms a circle from each side of the nosepiece under the mouth. A flexible rubber tube leads downward from this to a valve, which mixes oxygen from the tank with air. A new type oxygen tank is used which, although retaining the same strength, is much lighter than standard oxygen tanks. Another tube from the valve leads to the oxygen supply. Below the valve is suspended a small bladder just large enough for a single breath.

A newly developed reducing valve at the oxygen tank is so designed that it will feed the right amount of oxygen, regardless of the number of masks it serves. As many as 30 outlets have been connected to this valve without, it is claimed, affecting the amount of oxygen going to each mask.

In addition to Dr. Lovelace, nine officials, pilots and mechanics of the Northwest Airlines participated in the final flight test.

The article goes on further to say that tests with Army Air Corps experts at Wright Field, observations in low pressure chambers, and altitude test flights of short duration had been conducted prior to the final test.

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AIR CORPS PARTICIPATION IN AIR RACES

The War Department recently announced the approval of plans for an Army Air Corps demonstration and exhibit at the National Air Races, Cleveland, Ohio, September 3rd, 4th and 5th.

The 27th Pursuit Squadron of the First Pursuit Group, Selfridge Field, Mich., equipped with eighteen P-35 Seversky single-seater fighters, will perform a thirty-minute air drill daily, including mass formation and tactical maneuvers.

The ground exhibit will consist of nine modern tactical airplanes, each representative of a different type of combat plane, as follows:

A B-17 Boeing four-engined Bomber, commonly called the "Flying Fortress;" a B-18, Douglas twin-engine Bomber; an A-18A Curtiss twin-engine Attack plane; a Northrop A-17, single-engined Attack plane; a Curtiss P-36 single-seater fighter; a North American B-C1 Basic Combat plane, a North American O-47 Observation plane; the North American BT-9 training plane and the Kellett Autogiro. These nine planes will be located in an open air enclosure readily accessible to the public visiting the Races, and guides will be available daily to answer questions and describe the characteristics and purposes of each type.

The P-35 Seversky fighter, 18 of which will fly daily, is a low-wing all-metal monoplane, powered with a Pratt & Whitney "Wasp" motor, developing more than 800 horsepower. It has a speed of nearly three hundred miles per hour straightaway and shows high performance and maneuverability.

Major Willis Taylor, commanding the 27th Squadron, explained that his Squadron normally operates at high altitudes and many of the tactical maneuvers common at those fighting levels will perforce be eliminated in the comparatively low altitude work required at the Races. However, his Squadron will be able to demonstrate most of the squadron formations and many tactical maneuvers common to Pursuit flying in war exercises.

Under the plan announced by the Commanding General of the GHQ Air Force, Major General Frank M. Andrews, the 27th Squadron will arrive at Cleveland on Friday, September 2nd, make a practice flight on that date and fly for thirty minutes on the afternoons of Saturday, Sunday and Monday (Labor Day), returning to its home station early Tuesday, September 6th.

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NEW COMMANDER ARRIVES AT TRAINING CENTER

Brigadier General Barton K. Yount, Air Corps, assumed command of the Air Corps Training Center, Randolph Field, Texas, on August 5, 1938. General and Mrs. Yount arrived in San Antonio from the West Coast the day previous. Colonel Frank D. Lackland, Commandant of the Advanced Flying School, Kelly Field, Texas, met them at the railroad depot in San Antonio, and the officers of Randolph Field met them on their arrival at that station.

Prior to his present duty as Commanding General of the Air Corps Training Center, General Yount commanded the 18th Wing in the Hawaiian Department.

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PERMANENT COMMISSION FOR LIEUT. KAUFFMAN

Special Orders of the War Department, recently issued, announced the appointment of 2nd Lieut. Donald Harry Kauffman, Air Reserve, as a second lieutenant in the Air Corps, Regular Army, with rank from July 1, 1938, and his assignment to duty at Mitchel Field, N.Y., the station to which he was transferred as a Reserve officer in June, 1938, from Selfridge Field, Mich.

Lieut. Kauffman was born at Carlisle, Pa., May 30, 1915. He graduated from the Pennsylvania State Teachers College in 1936. Appointed a Flying Cadet in the Air Corps, he graduated from the Primary Flying School, Randolph Field, and the Advanced Flying School, Kelly Field, and on June 30, 1937, he was given the rating of "Airplane Pilot," commissioned a second lieutenant in the Air Reserve, and assigned to active duty with the First Pursuit Group at Selfridge Field, Mt. Clemens, Mich.

Several weeks following his arrival at Selfridge Field, Mich., Lieut. Kauffman suffered a leg fracture as the result of an emergency parachute jump, and he spent some time in the Selfridge Field hospital and later at the Walter Reed General Hospital, Washington, D.C.

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PERSONNEL NOTES

Three second lieutenants of the Air Corps have been designated as students to pursue the Photographic course at the Denver Branch of the Air Corps Technical School, Lowry Field, Denver, Colo., reporting not later than August 28th for duty. They are Waymond A. Davis and Wallace E. Nau, from March Field, Calif., and Francis L. Rivard, from Mitchel Field, N.Y.

Captain Harold G. Peterson was transferred from Chanute Field, Ill., to Scott Field, Ill., for duty with the 15th Observation Squadron.

First Lieut. Thomas R. Starratt, Air Corps, was transferred to the Cavalry, effective September 1, 1938, and transferred from Lowry Field, Colo., to the Cavalry School, Fort Riley, Kans., for duty as student in the 1938-39 course.

HARMON EFFICIENCY TROPHY TO 79TH PURSUIT

The 79th Pursuit Squadron, 20th Pursuit Group, GHQ Air Force, Barksdale Field, La., having attained the highest efficiency standard of any combat squadron in the Third Wing, GHQ Air Force, during the Fiscal Year 1937-1938, will be presented the Harmon Efficiency Trophy in the near future.

This Trophy was given to Colonel Millard F. Harmon on October 2, 1936, by the business men of Shreveport, La., as a present and token of their friendship for him.

Colonel Harmon in turn presented the Trophy to the Third Wing, GHQ Air Force, with the provision that it be given to the combat squadron of that wing attaining the highest efficiency standard each Fiscal Year.

The computation for the determination of the winning squadron in the award of the Harmon Efficiency Trophy is accomplished each July for the training year ending June 30th. Competition for the Trophy is confined to the combat squadrons of the Third Wing, GHQ Air Force, only.

The following factors are given equal value in determining the total score of each squadron:

Maintenance of airplanes;
Conduct of Training Regulations 440-40;
Completion of War Department (GHQ) Training Directive;
Maintenance of Barracks and Grounds;
Appearance of personnel;
Airplane accidents;
Forced landings;
Efficiency of Airplane Maintenance;
Venereal Rate, and
Court-Martial rate.

The following is the standing of the combat squadrons of the 20th Pursuit Group, GHQ Air Force, in the competition for the Harmon Efficiency Trophy in the Third Wing:

Fiscal Year 1937-38

1. 79th Pursuit Squadron
2. 55th Pursuit Squadron
3. 77th Pursuit Squadron

The 79th Pursuit Squadron deserves a great deal of credit for bringing their efficiency standing from sixth to first place during the Fiscal Year 1937-1938.

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The gunnery practice at Galveston, Texas, of the 77th Pursuit Squadron, stationed at Barksdale Field, La., has again been completed, with scores so far above the average as to cause the Air Corps News Letter Correspondent to add that: "Any prospective enemy would do well to think twice before getting in range of these experts."

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PERSONNEL TO PARTICIPATE IN AIR RACES

Elsewhere in this issue of the News Letter is an article concerning the participation of the 27th Pursuit Squadron, from Selfridge Field, Mich., in the National Air Races at Cleveland, Ohio, September 3rd to 5th, next.

Advice just received from the Selfridge Field Correspondent is to the effect that the following personnel will participate in these Races:

Major Willis R. Taylor,
Captain Robert S. Israel, Jr.,
1st Lieuts. Allan T. Bennett, Murray C. Woodbury, Winslow C. Morse,
2nd Lieuts. James O. Guthrie, John S. Chennault, Thomas J. Barrett, Howard B. Nichols, Arthur R. Kingham, Joseph F.B. Parker, Charles E. Grogan, Dale D. Brannon, William J. Feallock, II, Ralph S. Garman, Neil E. Kearby, Harold E. Kofahl, Theodore S. Proxmire, Clinton C. Wasem and James R. Watt.

The enlisted men are:

Master Sergeant Frank O. Wadsworth,
Technical Sergeant George Callaghan,
Staff Sergeants Earl W. Graham and Ford M. Swiney,
Sergeants Fred J. Mathews, Floyd W. White, Walter Shultz,
Corporals Edward E. Winning, Leewood Hall, James A. Pelling, Clarence E. Aborn,
Privates 1st Class Herbert F. Condne, Chester J. Jasinowshi, Frank B. Double, Archibald W.G. MacBeth,
Privates Theodore J. Schoolcraft, Thaddeus C. Strong, John I. Ciesla, John A. Ziemba and Roy E. Neal.

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55TH PURSUIT CELEBRATES ORGANIZATION DAY

The 55th Pursuit Squadron, Barksdale Field, La., recently celebrated Organization Day with a picnic at Clear Lake on the Barksdale Field reservation. It was a day of pleasure for all concerned. The refreshments provided the gastric delights, and a prolonged session of Bingo kept the ladies amused while the officers and enlisted men enjoyed a "Tug of War." There were cries of "foul play" when Major Armin F. Herold, Air Corps, back stop for the officers, upon seeing defeat staring him in the eye, wrapped the end of the rope around a tree. The enlisted men pulled so hard that they not only won the tug, but succeeded in leaving a scar on the tree trunk in memory of the festive occasion.

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The 77th Pursuit Squadron, Barksdale Field, La., recently had a change of commanding officers, Major Milo N. Clark being relieved from his duties as Squadron Commander and assigned as Base Adjutant. Captain Orrin L. Grover was assigned to duty as Commander of the 77th.

MID AIR COLLISION FATAL TO TWO CADETS

Flying Cadets Edward DeLaney Willard, of Modesto, Calif., and Robert Rempfer Whitehouse, of Evanston, Illinois, both students in the Pursuit Section of the Air Corps Advanced Flying School, Kelly Field, Texas, were killed in the mid-air collision of their BT-8 airplanes, which occurred at about 10:00 o'clock on the morning of August 15th, about one and one-half miles south of Dilley, Texas.

Both students, with their instructor, 2nd Lieut. John F. Guilmartin, were flying in a three-plane formation which had been performing a routine training mission prior to the accident. Following the collision, Willard's plane crashed from its cruising altitude of 1500 feet, while Whitehouse regained control of his plane and climbed to an altitude of approximately 3500 feet, where he "bailed out."

For some unexplainable reason, Cadet Whitehouse's parachute was not opened and, since inspection of the 'chute after the accident, failed to reveal any defect, it is the belief that the pilot was struck by some part of the airplane as he jumped.

Cadet Willard was born on March 18, 1916, at Modesto, Calif., where he resided when he was appointed a Flying Cadet. His father and mother, Mr. and Mrs. G.H. Willard, are also residents of Modesto. Cadet Willard graduated from Modesto Junior College in 1937, at that time receiving his certificate as an Associate of arts.

Cadet Whitehouse was born on February 16, 1917, at Topeka, Kansas, and was a resident of Evanston, Illinois, when he received his appointment as a Flying Cadet. He attended Northwestern University from 1935 to 1937. He is survived by his parents, Mr. and Mrs. Horace Whitehouse, of Evanston.

Both Flying Cadets had reported on July 1st for the advanced flying course at Kelly Field, after completing the primary course at Randolph Field.

The entire Air Corps extends its most sincere sympathy to the families and friends of these two very promising young pilots, who died in the service of their country.

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On August 17th, the San Antonio Air Depot, Duncan Field, Texas, enjoyed a brief visit from Major General Frank M. Andrews, Commanding General of the GHQ Air Force; Brigadier General G.C. Marshall, Assistant Chief of Staff, War Department; Lieut. Colonel E.L. Naiden and Lieut. Williams, of Langley Field. These officers were visiting Air Corps stations, flying in a C-32 transport, and were returning to the East from the West Coast.

VISITING AIRCRAFT CREW AT MAXWELL FIELD

In a recent issue of the News Letter it was stated that during the calendar year 1937, the Visiting Ship Hangar Crew at Bolling Field, D.C., established what they consider should be a record for the handling of visiting aircraft, in that a total of 2,985 transient airplanes were serviced without accident to aircraft or injury to personnel.

With reference to the above, the News Letter Correspondent from Maxwell Field, Montgomery, Ala., submitted the following:

"With an Emergency Crew of seventeen men, under the supervision of the Station Engineering Officer and under the immediate direction of Lieut. Dyke F. Meyer and Staff Sergeant S.K. Frost, Maxwell Field hung up a new record in servicing visiting aircraft during the fiscal year of 1938. The total number of ships serviced during this period was 3,440. Of this number 2,753 were Army planes of all types. Navy visitors numbered 687.

Visitors included all ranks from the Chief of the Air Corps, General Oscar Westover, to second lieutenants fresh from Kelly Field.

Numerous appreciative comments were made in praise of the efficiency of the Emergency Crew. With the 1938 record behind them, the Emergency Crew of this station bids welcome to all visiting aircraft during the next fiscal year."

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PERSONNEL CHANGES IN GHQ AIR FORCE

Special Orders of the War Department, recently issued, relieves Colonel Walter H. Frank (Air Corps), General Staff Corps, now on duty at General Headquarters Air Force, Langley Field, Va., from detail as a member of the General Staff Corps and from assignment to the General Staff with troops, to take effect August 31, 1938.

Colonel Walter G. Kilner (Air Corps), General Staff Corps, now on duty at General Headquarters Air Force, Langley Field, Va., is assigned to duty as chief of staff, General Headquarters Air Force, to take effect September 1,1938.

Lieut. Colonel Francis M. Brady, Air Corps, now on duty at Langley Field, Va., is detailed as a member of the General Staff Corps and assigned to the General Staff with troops, to take effect September 1, 1938, and will report to the commanding general, General Headquarters Air Force, Langley Field, Va., for duty accordingly.

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WHY DO THEY CALL THEM "SOLDIER BOYS"?
By the Selfridge Field Correspondent

The expression "Soldier Boys" is troublesome, not only to the present day soldier, but the term continually requires an explanation to the layman. The writer remembers this term was used extensively during the World War. Popular song writers may have wished this on us in order to make their ditties come out even. Now as we grow mellow with years, the term seems quite gratifying. Anyway, the career, record and usual hobby of Staff Sergeant Elbert Dossett, 94th Pursuit Squadron, 1st Pursuit Group, Selfridge Field, Mich., may help to clear this dogma.

The Sergeant was born on March 29, 1901, at Ridgeway, Ill. He enlisted in the Air Corps and was appointed Staff Sergeant during his first enlistment. No one can say that he is not the last word in competency. With these facts before us he is conclusive proof to exemplify the title "Soldier Boys." He rightly deserves same. Perhaps, in a way, holding the grade of Staff for 17 years has been of great service to him and justifies him to be chief contender for the above title under discussion. Now the problem before his many friends is, will there now be a change in his actions, will they lose the companionship they have so long enjoyed? Will he, by his own very actions, eliminate himself from being the one living example of the answer to this question?

Not long ago, the Sergeant returned from furlough. There was a gleam in his eyes when he mentioned he had brought a widow back with him, a black one at that. Many were nonplussed as they gathered around. Then he proceeded to bring forth a small box. It was finally opened amidst ahs and other barrack room expressions. It was found that the Sergeant had brought back a Black Widow Spider, the most dangerous of the species. The one thing foremost in all minds was the fact that the black spider always devours her mate. He has no reason to be jealous of his new pet. She is left to her own devices and is never bothered in her little home. She has, however, proven loyal and has in a way become a benefactor to the Squadron by doing away with all other spiders in the barracks. The boys in turn show her their appreciation by seeing that she is well supplied with flies for her daily rations.

Several months have passed, and the widow continues to thrive and seems content with her present surroundings. Will the Sergeant be advanced in grade before she devours him or vice versa? Will the two continue along in their present happy existence? If so, the 1st Pursuit Group will again gain recognition by being able to tell the world that one of their members is the living answer to the title "Soldier Boys."

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SQUADRON CONTINUALLY ON THE MOVE

Headquarters Flight Section was recently again on the move. Monday, August 8th, was moving day for Headquarters and Headquarters Squadron, 1st Pursuit Group, GHQ Air Force, Selfridge Field, Mich. This time it was from the hangar of the 27th Pursuit Squadron to the one occupied by the 94th Pursuit Squadron. The move was made to make room for the airplanes assigned to the 27th Pursuit Squadron, which it is expected will take part in the Fort Bragg maneuvers.

In the past, Headquarters Squadron has occupied at some time or other all four hangars at Selfridge Field. This makes the second time they have resided with the 94th. "It looks as if we have started our second cycle of moving, although not in the same order," says the News Letter Correspondent, and he then adds: "The personnel of the flight section are becoming very efficient at moving. This last transfer was made in what we believe to be record time - two hours flat. Operations and engineering, as well as flying, were hardly interrupted. We are a little short of room, due to engine changes being made by the 94th, but in another month we should have the entire west half to ourselves. The office, stock room and radio are located in the southwest corner of the hangar. In the past, the operations and engineering clerk was given a corner in the room used by the other squadron for their office. This has proven unsatisfactory for all concerned, so the new plan we are trying of having the office out in the hangar is being experimented with. So far it has proven a sound idea.

No trouble was experienced during the moving with the exception of one load being dumped from the trailer. The clerks were moving their office equipment with a tug, and after successfully reaching their destination the entire load fell off the trailer. Things were in a pretty mess, though nothing was broken.

Where to next? Gossip has it that we are headed for the tractor shed - maybe so. Should this be true, we will try and make even better time in moving and will undoubtedly transform these sheds into a first class hangar. "Just a little home to call our own."

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Major Orlo H. Quinn, Air Corps, having been found by an Army retiring board incapacitated for active service on account of disability incident thereto, is retired from active service, effective August 31, 1938.

In an article in the September-October issue of ARMY ORDNANCE, Mr. Horace J. Alter, an aeronautical engineer of Brooklyn, N.Y., states that the fighting airplane may be considered the opening weapon of offensive tactics, due to its mobility and striking power at long ranges, since it can reach far beyond the frontiers and invade deeper into hostile territory in a few hours than any other branch of the Army, and that with the various types of bombs it is capable of carrying in the air it can bring the effects of war to any portion of the theatre of war into which it has penetrated.

Contending that the fighting airplane will be the main defensive weapon in the air, its mission being to engage the bomber, the author asserts that, in order to compete with present bombers, defending airplanes must possess superior armament, speed, and perhaps climb and maneuverability. He believes that air combats are much more probable between bomber and fighter; that escorts for a bombardment squadron on long missions are improbable, due to insufficient fuel loads of Pursuit planes of the two-place type and, as far as single-seaters are concerned, they cannot defend the rear and must abandon support of a bombardment formation when attacked by hostile airplanes; further, that the modern bombers in formation are well suited to repel a pursuit attack by concentration and volume of fire and, therefore, have little need of an escort.

Other handicaps confronting Pursuit are enumerated, viz:

The speed of the Bombardment plane approaches that of a Pursuit plane, thus aggravating the difficulty of interception by the latter;

The all-metal construction of the Bombardment plane makes it more difficult to destroy, since its structure is such that it can be pierced with machine gun bullets without weakening it;

The use of the automatic pilot and improved instrument flying equipment allows the Bombardment plane to carry out missions under conditions considered impossible during the World War;

The Pursuit or fighter pilot attacking a modern Bombardment plane has to cope with higher speeds and altitude, more efficient airplanes and formations, heavier armament and a multiplicity of gun angles in order to avoid the fire of bomber gunners.

Referring to the defense fighter plane used against Bombers which, it is pointed out, would not be the single-seater, or the slightly larger two-seater, but a mighty, high speed, heavily armed ship, Mr. Alter says that if this defense plane can intercept the Bomber before it has reached its objective or can impede its progress by diverting it or forcing it to fight, the Bomber would be at a disadvantage, and the defense would then have a chance to bring up reenforcing planes and ground batteries, that is, provided the defense fighter has had previous warning of the impending raid and has had time to gain sufficient altitude to dive and overhaul the Bomber, otherwise it will be impossible to prevent the raid. Since closing in on the Bombardment plane during bombing operations would be hazardous and a serious hindrance to antiaircraft ground operations, the only choice left to the defense fighter would be to attack the Bomber returning from its raid.

Further along in his article, Mr. Alter enters into a discussion of air-cooled versus liquid-cooled engines. He states that the necessity of high speed indicates the use of motors of high horsepower and low power loading, since these factors have a marked effect on take-off, climb and speed at altitude - all of which are of utmost importance to the military airplane. He points out that, while in the United States the air-cooled radial engine has predominated and the development of the in-line liquid-cooled engine has all but ceased, there is little doubt that for equal horsepower the in-line engine has less drag than the radial. In tests run at the California Institute of Technology, it was shown that there is a 21 percent increase in speed with an 18 percent decrease in power if an in-line engine of 1,000 horsepower is used instead of a 55-inch diameter single-row radial engine developing 1250 brake horsepower.

As the diameter of the radial engine increases, more of the horsepower is used in overcoming the resistance of the engine itself, until a point is reached at which no matter how many engines are added no increase of speed is obtainable.

Efficient and even cooling of the radial engine at high altitude has become more and more difficult with higher horsepowers and may necessitate richer mixture ratios with the same power output as is obtained at sea level, thus reducing the fuel economy.

In taking the stand for the liquid-cooled engine, Mr. Alter asserts that there is no reason to believe that the horsepower limit has been reached with it, but that, in fact, tests seem to indicate more efficient performance with it than with the radial in the high-powered engines. The liquid-cooled engine equipped with the turbo-type supercharger can hold sea-level power, without loss up to an altitude of 40,000 feet, while the radial engine with the centrifugal-type supercharger suffers a

fifteen percent loss at the same altitude. Mechanically, the exhaust-gas turbo-blower is far superior to the gear-driven type, and when starting at slow speeds the former does not produce any appreciable pressure and therefore is not a load upon the engine. It also permits the free passage of the exhaust gases. On the other hand, the centrifugal type is always a load upon the engine, as the power required to turn it is practically constant, even if the air is not being compressed.

More economical performance through use of higher compression ratios may be readily achieved with the liquid-cooled than with the air-cooled engine, since it is accompanied by higher specific heats. With leaner fuel mixture and lower full throttle specific fuel consumption, the liquid-cooled engine should prove of great tactical value to the military airplane in maintaining an air patrol and in providing long range.

Discussing the prospects of the Diesel engine which, like the liquid-cooled engine, presents a field that has been as yet undeveloped, Mr. Alter, after pointing out that the greater weight of the Diesel engine may be offset by the saving in fuel consumption, cites various factors in its favor, such as:

As break mean effective pressure increases and more rugged construction is necessary, the weights of the Diesel and gasoline engines will tend to become more nearly equal.

In climbing from sea level to 10,000 feet, the Diesel will increase its revolutions, thus increasing its power output; hence its power curve does not drop off as rapidly with altitude as does that of the gasoline engine, due to its higher compression ratio.

Under normal combustion conditions in the Diesel cylinder, an oversupply of air and oxygen usually is sustained in ratio to the amount of fuel used, and the revolutions per minute decrease less rapidly than in a gasoline engine at altitudes above 10,000 feet.

The performance of a two-stroke, scavenging, supercharged Diesel engine, besides giving smoother operation and more power strokes per revolution, has a remarkable economical fuel consumption, which is an important advantage.

The Diesel does not interfere with radio apparatus and offers little chance of interference with the ignition system by means of rays, radio, or other such possibilities of future wars.

The Diesel offers reduced fire hazard - an especially favorable feature for the military airplane which may be attacked with incendiary bullets.

In airplanes weighing between 16,000 and 20,000 pounds, two Diesel engines of between 1100 and 1500 horsepower each would be necessary, and for best performance such motors should have opposite rotation to counteract the high torque. Oppositely rotating motors have not been adopted in this country, but have been favored abroad, and in France motors of opposite rotation are compulsory for bi-motored ships.

Mr. Alter claims that with the in-line liquid-cooled engine, or opposed, narrow Diesel engines, it no longer should be necessary to place the propeller in front of the wing. He states that tests conducted at the N.A.C.A. Laboratories indicate that a pusher propeller, driven by an engine inclosed in the wing, has a higher propulsive efficiency than a tractor propeller driven in the same manner.

Discussing aircraft armament, Mr. Alter points out that the high speed of present airplanes places special significance upon long range and destructive effect of the gun. Size, placement and mobility are the important factors and not the total number of guns. The machine guns as used at present can do little damage to bombers and cannot be expected to force the fight. The adoption of shell-firing cannon and explosive shell seems indicated. The explosive shell does away with the need of accurate sighting and timing, since a direct hit is not necessary to cause damage. Large cannon can be placed in bimotored, multiplace combat airplanes without seriously affecting the performance of the planes. These guns can be mounted to produce a high concentration of fire in all sectors.

Touching on the essential part of any airplane, the crew, the author finds further justification for his advocacy of the multiplace combat plane in the fact that there is not sufficient personnel in a single or dual-place fighter to carry on sustained combat. With the multiplace combat plane casualties to personnel do not decrease its effectiveness materially. In the Pursuit plane the pilot has to maneuver his plane and tend to his guns at the same time, and he has a limited field of fire. If he is wounded, either seriously or fatally, the airplane is effectively out of combat or a menace to both sides.

His arguments in favor of the multiplace combat plane are summed up as follows:

1. It is capable of sustained fighting at all times and under varied conditions.
2. It is heavily armed and can carry large-bore weapons without serious effect upon structure or performance.
3. It has a heavy concentration of fire.
4. It is capable of fighting at high altitudes without undue strain or great discomfort to its personnel.
5. It has adequate personnel and can be effective even when casualties occur.

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88TH SQUADRON IN FIRST WING EXERCISES

The 88th Reconnaissance Squadron, stationed at Hamilton Field, Calif., participated in the First Wing, G.H.Q. Air Force, Exercises in the Pacific Northwest during the month of August. The Squadron was attached to Wing Headquarters, based at Gray Field, Fort Lewis, Wash. Nine officers, thirty enlisted men and four B-18 airplanes were taken. The men were quartered in tents, and the officers had a separate C.M.T.C. building to themselves.

The Squadron participated in two long formation flights around the Northwest area, a separate bombing mission over the ocean off Cape Flattery, and furnished airplanes for display on visitors' day. The squadron also ferried line branch officers from Pearson Field to Gray Field, so that they could witness a bombing demonstration conducted by the 1st Wing at Fort Lewis.

Other points of interest included a trip to Seattle, Wash., where several squadron officers and enlisted men visited the Boeing factory. The new clipper ship was seen in all stages of construction, from beginning to completion, and the mock-up of the stratosphere ship was also inspected.

A reception and dance at the Fort Lewis Officers' Club was given for General Andrews and officers of the First Wing.

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A FIRM BELIEVER IN ADEQUATE PREPAREDNESS

Further referring to the participation of the 88th Reconnaissance Squadron in the First Wing Exercises in the Pacific Northwest, the Hamilton Field Correspondent declares that the above Squadron boasts of the most completely equipped officer on the maneuvers. While most of the officers took along an extra pair of pants and shirt, one officer of the 88th included much more.

An inventory was taken, and it was found that this officer not only had the necessary extra clothing, etc., but also the following items:

Five-tube radio	"Rain in the Doorway" by Thorne Smith.
Static eliminator	7-cell flashlight
Camera outfit (less tripod)	Playing cards
Brief case	Buttons
Extension courses	Needle and thread
Corn plasters	Nurses' thermometer
Stimulant (medicinal)	Mirror
Mentholatum	Athletic clothes plus baseball cap
Listerine	Bed heating pad
Aspirin	Bathrobe
Cathartic	Slippers
Anti cathartic	Electric razor
Vicks drops	Safety razor
Cough drops (2 varieties)	Civilian cap
Kleenex	Toothpicks
Chewing gum	First aid kit, (complete)
Paper, bathroom	Candy kisses
Paper, writing	Circular slide rule
Album, stamp	Large protractor
Album, family	Small protractor
Reading lamp	Gloves
Night lamp	S-4 crying towel
Two extension cords	Large pocket knife
Thermos bottle	Small pocket knife

The News Letter Correspondent submits this list only as a matter of interest, and expresses the hope that it will not be included in the prescribed officers' field equipment.

Athletics and exercises during the maneuvers were taken care of through bowling and organized softball between officers and enlisted men.

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PERSONNEL NOTES

Orders assigning Major Harold W. Beaton to duty at Langley Field, Va., upon the completion of his tour of foreign service, were amended so as to assign him to Barksdale Field, La.

Master Sergeant Ruben St. John, Air Corps, stationed at Mitchel Field, N.Y., was appointed Warrant Officer, U.S. Army, effective September 1, 1938, and assigned to the Air Corps. He will remain on duty at Mitchel Field.

Major A.G. Hamilton, formerly stationed at Brooks Field, Texas, arrived at Marshall Field, Fort Riley, Kansas, on August 19th to assume command of the First Observation Squadron.

Second Lieut. Roy Ossin Ralston, Air Reserve, of Dallas, Texas, was assigned to extended active duty at Patterson Field, Fairfield, Ohio, to September 5, 1941.

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1ST OBSERVATION SQUADRON IN MANEUVERS

A motor convoy with all except a handful of men of the 1st Observation Squadron, Air Corps, left Marshall Field, Fort Riley, Kansas, on August 24th, on a four-day trek to Camp McCoy, Wisconsin, to participate in maneuvers of the 14th Brigade (Reenforced) during the period from August 28th to September 10th. Eight airplanes were scheduled to leave Marshall Field for the maneuver area on August 28th.

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Second Lieut. G.H. Snyder ferried an autogiro from Patterson Field, Ohio, to Fort Riley, Kansas, on August 23rd. The Giro is to be utilized for test and experiment by the Cavalry Board to develop the tactics and technique of its use in cooperation with Cavalry.

A MOTOR TRIP DOWN THE OLD MISSISSIPPI

Two Air Corps officers, Lieut. Colonel Gerald E. Brower and Captain Hugo P. Rush, recently returned from a rather unusual vacation. Utilizing a 16-foot open motor boat, they spent 28 days on the water and traveled from Pittsburgh, Pa., down the Ohio River and then down the Mississippi River to New Orleans, La. From the Crescent City they continued along the Gulf of Mexico to the Air Corps aerial gunnery base at Valparaiso, Fla., which is used mostly by the Air Corps personnel at Maxwell Field, Ala., and which also serves as a vacation resort.

The entire trip involved a total distance of about 2200 miles. Captain Rush, owner of the boat, and Colonel Brower ate, slept and lived on it during the entire trip. No difficulties worthy of mention were encountered on the journey. What seemed to interest most of the people they met along the way was the 5 horsepower air-cooled engine with which the boat is equipped. The air-cooled engine is a rather recent innovation and has many advantages over water-cooled engines, especially in waters with a large silt content and in salt water. The motor never missed a lick.

There was only one day of rain during the entire trip, and this seemed rather unusual since the officers heard over the radio and read in the newspapers of bad weather prevailing all over the country during that particular period. There was only one day when they did not travel, and on that occasion they were held up at New Orleans on account of hurricane warnings. They spent that day with Mr. Higgins, of the Higgins Boat Company, and investigated the possibility of utilizing his specially designed boats as airplane rescue craft.

Possibly the most outstanding feature of the trip was that, while the vacationists knew they were in the center of what is supposed to be an inhabited and civilized country, there were very few indications to substantiate that fact. The impression they had all along, especially while they were on the Mississippi, was that they were almost entirely cut off from the rest of the world, except when they neared the big cities, and there were no indications of human beings living anywhere along either shore. For the most part, difficulty was experienced in obtaining food and gasoline.

Due to the seemingly desolate character of the country through which they traveled, and the almost complete absence of houses or shacks along the river banks, except when the vicinity of the large cities was reached, the officers expected the trip to prove very monotonous or boresome during the greater part of it, but actually they were kept busy all the time. The trip proved such a complete change from the ordinary routine of life that it turned out to be a really fine vacation. Captain Rush grew a luxuriant beard, and both he and Colonel Brower could well have been mistaken for negroes by the time the trip was completed. Certain it is that they absorbed plenty of sunshine.

A most unusual and unexpected incident cropped up on the Mississippi River just above the Red River, when they met F.G. Tinker, the American airman who saw action in the civil war in Spain and who wrote the very interesting story in the "Saturday Evening Post" under the title "Some Still Live." Tinker was on his way down into the Evangeline country and was paddling a canoe. It was quite a coincidence meeting him on the river, and the fact that here were three aviators meeting in the middle of a river in small boats struck them as being quite unusual. They drifted along together for a couple of hours and talked over aviation matters.

The meeting with Tinker marked one of only two other pleasure boats that were met during the whole trip. Apparently very few people make that sort of a trip on the river. It was thought that considerable travel on the river would be in evidence, but it was learned that, outside of a few excursion boats at the larger cities, there is no passenger traffic on it whatever - quite in contrast to the old days on the Mississippi as pictured so vividly by the famous novelist, Mark Twain. The trips of these excursion boats seem to be limited to ten miles or less from the big cities, and even these trips are few and far between. Only one packet was running on schedule. The last packet was met at Vicksburg, Miss., and the unloading of it proved to be quite an interesting sight. The officers visited with the crew of this boat.

It was learned that commercial traffic on the Mississippi had increased somewhat, and that most of this increase is attributed to government subsidies. A number of the old stern wheelers were observed, also some new and fast screw-propelled boats, pushing up and down the river strings of barges usually loaded with oil or gasoline.

The complete lack of activity on the river may be attributed mainly to fears of flood. Other factors are the vast improvements effected in automobile, bus and rail transportation. Still another factor is the presence of many floating logs, making it compulsory for pilots of water craft to be particularly vigilant and to exercise considerable concentration on the job so as to dodge them and avert disaster.

On the Ohio River, between Pittsburgh

and Cairo, Ill., there are nearly fifty locks. Colonel Brower and Captain Rush passed through only about twenty of them and passed over the remainder on the crest of a flood which prevailed at that time. This permitted them to go over the various dams.

It was noticed that Army engineers are performing a great job in connection with flood control along the river. Cut-offs have been effected at many of the bends in the river, and work is proceeding at a constant pace on the channel and on the banks.

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PURCHASE OF AIR CORPS EQUIPMENT

Under date of August 29th, the Acting Secretary of War, the Honorable Louis Johnson, announced the following awards:

To the Sperry Gyroscope Company, Inc., of Brooklyn, New York, a contract for various flight instruments in the amount of $376,600.

To the Kollsman Instrument Company, Elmhurst, New York, a contract in the amount of $135,850. for various flight instruments.

These flight instruments are to be installed on new aircraft being procured, and to replace obsolete flight instruments on older aircraft.

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PHOTOGRAPHIC WORK BY 1ST OBS. SQUADRON

The photography has just been completed for a controlled mosaic embracing 3500 square miles, being made by the 1st Observation Squadron, stationed at Marshall Field, Fort Riley, Kansas, for the Command and General Staff School at Fort Leavenworth, Kansas.

During the month of August, a strip was made covering 1,000 square miles of the flooded Missouri River. The photographs will be used by U. S. Engineers in preparing flood-control projects and in settling claims for flood damage.

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CAPTAIN HONAN GOES TO WRIGHT FIELD

Captain John J. Honan, of the Judge Advocate General's Department, U.S.Army, is relieved from assignment and duty in the Office of the Chief of the Air Corps, Washington, D.C., effective October 17, 1938, and is then assigned to the Air Corps Materiel Division at Wright Field, Dayton, Ohio. Captain Honan is also detailed for duty with the Organized Reserves of the Fifth Corps Area.

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U.S. WAR BALLOONISTS TO MEET IN CONVENTION AT LOS ANGELES.

Veterans of the World War who served with the Lighter-than-Air Division of the Aviation Section, Signal Corps, are scheduled to concentrate at Los Angeles, California, for their annual conclave, September 18th to 21st, next.

In the latest issue of "HAUL DOWN AND EASE OFF," the official publication of The National Association of American Balloon Corps Veterans, it is stated that to Sandbaggers the 1938 American Legion National Convention is but a "side show" compared with the "BIG TOP" attraction of the Balloon Veterans, as planned by the Los Angeles Bed No. 4, and its reunion committee.

The sessions of the convention will be held at the Clark Hotel.

In the official publication, above referred to, numerous terms are applied to the men who served in the Balloon Section during the war, such as "Sandbaggers," "Balloonnaires," "Rope-Pullers," and what have you.

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Major General Oscar Westover, Chief of the Air Corps, was the guest of honor at the first Fort Omaha Reunion Banquet of the U.S. War Balloonists, which was held recently in Omaha, Nebraska.

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TEST OF PILOTS' SUN GOGGLES

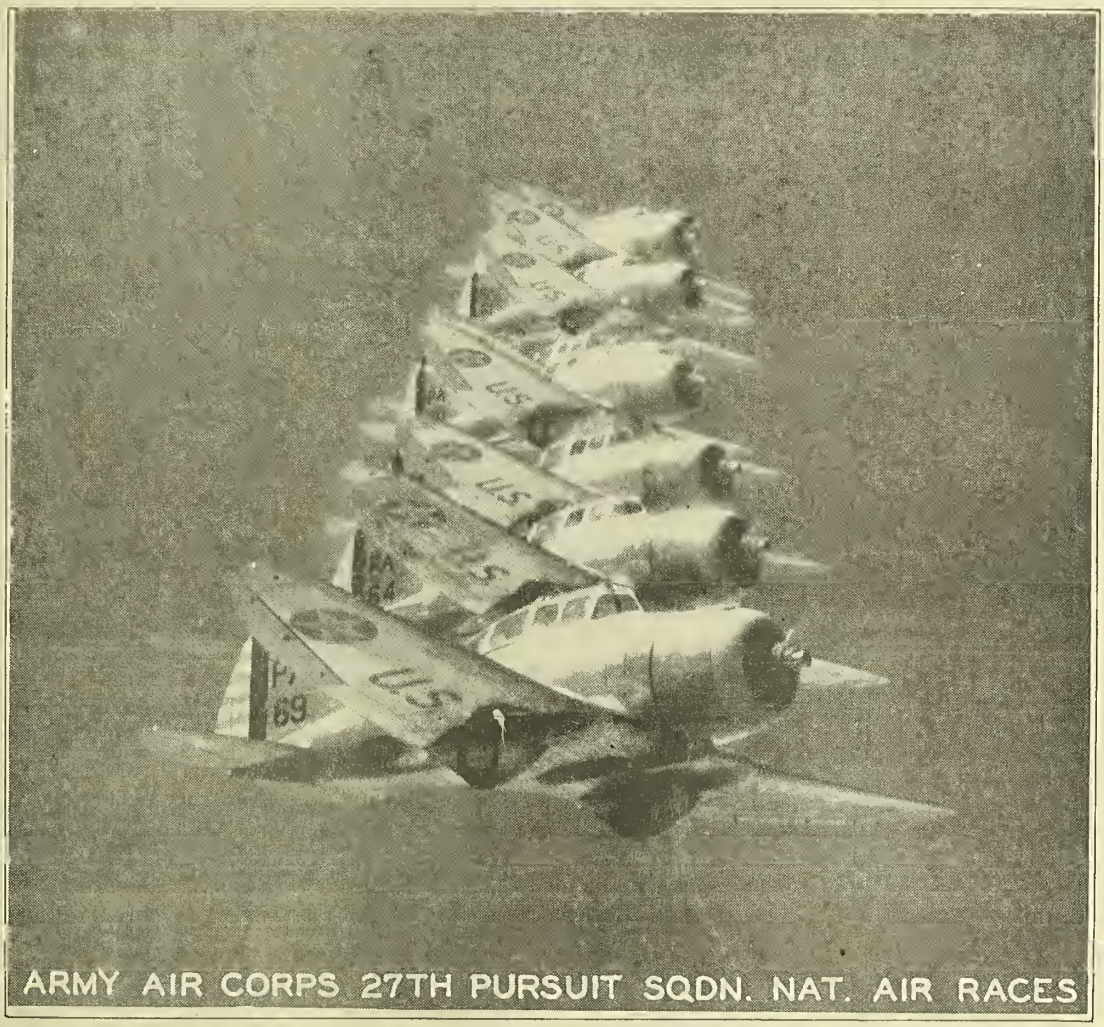
Ten pairs of pilots' sun glasses, conforming to Navy Aeronautical Specification No. M-346, have been obtained by the Air Corps Materiel Division, Wright Field, Dayton, Ohio, for the purpose of conducting comparative service test with the Air Corps Type D-1 anti-glare goggles, conforming to Air Corps Specification No. 3064 and Air Corps Drawing 34B4023.

Flight tests under a wide range of atmospheric conditions were to be conducted at five Air Corps stations. Questionnaires have been forwarded to these five stations which are to be accomplished and forwarded to the Materiel Division by September 1, 1938.

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The 4th Annual Convention of the Western Safety Conference, which comprises eleven western States, will be held in Los Angeles, Calif., September 12 to 16, 1938. Invitations have been issued to those in the aviation industry in the western part of the United States to attend and participate in the sessions and discussions of this conference which, it is stated, will be of genuine importance to every division of Western Aviation. Such recommendations as the Conference may make will serve as a guide to the Governors and Legislatures in formulating any legislation pertaining to aviation.

AIR CORPS NEWS LETTER



ARMY AIR CORPS 27TH PURSUIT SQDN. NAT. AIR RACES

ISSUED BY
THE OFFICE OF THE CHIEF OF THE AIR CORPS
WAR DEPARTMENT
WASHINGTON

VOL. XXI SEPTEMBER 15, 1938 NO. 18

VOL. XXI AIR CORPS NEWS LETTER NO. 18.

Information Division, Air Corps — September 15, 1938 — Munitions Building, Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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ARMY AIR CORPS WINS COLLIER TROPHY FOURTH TIME

Announcement was made on September 15th by Mr. Charles F. Horner, President of theNational Aeronautic Association, that the Army Air Corps has been awarded the Collier Trophy, aviation's highest honor. Successful accomplishment in high flying by the pressure cabin method won for the Air Corps this coveted Trophy. This accomplishment paves the way for day by day so called stratosphere flying, by both military and transport airplanes, and it was selected from a field of 35 aeronautical achievements during the year 1937 as most outstanding. An awards committee of nine prominent flyers and engineers, named by the President of the National Aeronautic Association, acted to decide the 1937 award.

By the Army pressure cabin method, passengers, pilots and crew can fly in ease and comfort at all altitudes. By supercharging of the air within the cabin, normal atmosphere conditions are maintained. Although tried many times in the past, the Army's pressure cabin development is the first which has thoroughly demonstrated its safety and practicability. This was done in exhaustive tests extending over many hundreds of hours and many thousands of miles, thus qualifying this research for designation under the terms of the Collier Trophy Award as "The greatest achievement in aviation whose value has been demonstrated in actual use during the previous year."

The citation accompanying the award reads:

"To the United States Army Air Corps for having designed, constructed and completely equipped the XC-35 Sub-Stratosphere plane, the first pressure cabin airplane to be flown successfully anywhere in the world."

Four other important aeronautical achievements during the year 1937 were given honorable mention by the National Aeronautic Association in announcing the award. These were: The Boeing Aircraft Company's completion and demonstration of the huge four-engine flying fortresses, known by the Air Corps designation B-17 and XB-15; the successful development by the Buffalo Propeller Division of the Curtiss-Wright Corporation of the full feathering automatic control pitch propeller; the test piloting research in high altitude flying done by D.W. Tomlinson, of Transcontinental and Western Air; and operating and maintenance methods and equipment developed by American Airlines which helped this airline to complete the flying of 123,074,318 passenger miles without fatal accident.

Major Carl F. Greene, Captain Alfred H. Johnson and Dr. John E. Younger were cited as Air Corps principals in the research and development work which resulted in the award. Major Greene initiated the project and was supervising officer. Captain Johnson acted as test pilot and assisted in the engineering. Dr. John Younger was responsible for the technical aspect. In addition, Lieut. Colonel Oliver P. Echols, of the Materiel Division of the Air Corps at Wright Field, Dayton, Ohio, was cited as the administrative officer under whose executive direction the research was carried on.

The National Aeronautic Association Committee on awards was as follows:

Major James H. Doolittle, Chairman; Mr. E.R. Stettinius, Jr.; Mr. Leighton Rogers; Mr. Edward P. Warner; Mr. William B. Mayo; Dr. George W. Lewis; Mr. S. Paul Johnston; Mr. Henry B. Dupont and Mr. T.P. Wright.

The late Robert J. Collier established the Collier Trophy in 1911. By tradition this award has become the symbol for the year's outstanding aeronautical achievement. Previous winners include Orville Wright, Glenn Curtiss, Grover Loening, Charles L. Lawrance, Harold Pitcairn, Glenn L. Martin and Donald Douglas. The Trophy has previously been awarded to Army Air Corps personnel three times, as follows:

1924 to the U.S. Army Air Service for having accomplished the first aerial flight around the world;

1926 to Major Edward L. Hoffman for his work in the development of the parachute, now universally used;

1934 to Major Albert F. Hegenberger for his achievements in blind flying.

The last award of the Collier Trophy for the year 1936 was to Pan-American Airways for the establishment of the Trans-Pacific Airlines.

V-7844, A.C.

ENCAMPMENT OF NATIONAL GUARD AIRMEN

The 120th Observation Squadron, 45th Division Aviation, Colorado National Guard, went into its annual encampment at its home base, the Municipal Airport at Denver, Colorado, from August 1st to 15th, under new leadership. Major Frederick Walker Bonfils, who assumed command of the Squadron in April, had his organization trained to a fine degree of efficiency in anticipation of the Squadron's participation in the Third Army Maneuvers at Cheyenne, which were held for four days during the closing week of camp. Major Bonfils, who in civil life is business manager of the DENVER POST, was graduated from the U.S. Military Academy in 1916, and he has given the greater portion of his time outside of business hours to the affairs of the Squadron.

On July 25th, Major R.R. Brown, who served as Regular Army instructor of the Squadron since November 12, 1936, was transferred to Lowry Field, Denver, Colo., and appointed Operations Officer. He was succeeded by Captain John K. Nissley, and he and Major Bonfils immediately set up an intensive training program for the first week of the encampment. Considerable time was spent effecting efficiency on panel and radio communications, with the result that the 148 hours of flying put in by the Squadron at the war maneuvers in the Cheyenne Area received very favorable comment from the umpires.

On the night before the last day of the maneuvers, arrangements were made to "attack" the City of Cheyenne, Wyoming, and defense preparations included the absolute black-out of the city and the closing off of the radio beams. Six ships from the Squadron were assigned to the attack, and from them flares were dropped in the heart of the city. Two flares dropped on the State Capitol and two landed in the all-important railroad yard, paralyzing headquarters communications and all rail transportation. This was accomplished despite very bad weather conditions. In fact, just prior to the zero hour, a 500-foot ceiling was reported. One of the planes, flown by Lieut. Robert Ainsworth, with Lieut. Harley Teall as his observer, while circling for the rendezvous, noticed a slight break in the clouds and dove into it for one last observation. A violent rain storm was raging, and they were just in time to see an important railroad bridge of the Colorado and Southern Railroad carried away by the turbulent streams it crossed.

Returning to the Cheyenne Airport at full throttle, the airmen reported the washout just in time to stop an important freight train as it was leaving the freight yards, thereby averting what might have been a major catastrophe. The railroad officials and the Governor of the State forwarded appropriate letters of appreciation to the Squadron Commander.

During the encampment, inspection visits were made by Colonel Clarence L. Tinker, Officer in Charge of Air Corps National Guard activities in the National Guard Bureau in Washington; Colonel Hugh J. Knerr, Air Officer of the 8th Corps Area, and Colonel Edgar A. Myer, Infantry, in charge of National Guard activities of the 8th Corps Area. Colonel Myer, whose headquarters are at Fort Sam Houston, Texas, made his inspection in company with Brigadier General W.E. Gunther, who commanded the Red forces during the maneuvers. During his visit, General Gunther took his first airplane ride when Lieut. Vaughn flew him on an inspection trip over Fort Logan, Colorado.

On Wednesday, July 27th, the officers of the Squadron and their wives entertained Major and Mrs. R.R. Brown in appreciation of Major Brown's untiring devotion and work for the Squadron in his capacity as Regular Army instructor. Major Bonfils, Squadron Commander, acted as toastmaster, and other guests included Brigadier General A.P. Ardourel, Adjutant General of the Colorado National Guard, and Captain Leo H. Dawson, Air Corps, who was on leave from his home station at Mitchel Field, New York.

Drills for the Squadron during the winter season will include two Sunday mornings and two Wednesday nights each month. In addition, orders have been posted that each officer of the Squadron will be required to perform five hours of assigned missions aside from the regular drill period. Pilots are assigned several additional hours of instrument flying each month, and it is felt that, as a result, the Squadron will attain even a greater standard of efficiency than it now enjoys.

Officers of the 120th Observation Squadron and their respective assignments are as follows:

Major Frederick W. Bonfils, Commanding 45th Division Aviation.
Captain John K. Nissley, Air Corps, Instructor.
Captain Harrison W. Wellman, Jr., Commanding Flight "A."
Captain Raymond M. Wilson, Operations Officer.
Captain Homer G. Sweet, Commanding Flight "B."
Captain Stanford W. Gregory, Liaison Officer, Flight "A."
Captain Henry S. Houghton, Liaison Officer, Flight "B."
1st Lieut. William C. Calhoun, Commanding Photo Section.
1st Lieut. Eugene Cunningham, Supply Officer.

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1st Lieut. Baxter L. Ireland, Engineering Officer.
1st Lieut. Ford E. Williams, Adjutant.
1st Lieut. Howard M. Williams, Assistant Liaison Officer, Flight "A."
1st Lieut. Daniel F. Burns, Personnel Adjutant.
1st Lieut. Harley A. Tsall, Mess Officer.
1st Lieut. William B. Ogle, Athletic Officer.
1st Lieut. Manfred W. Swink, Communications Officer.
1st Lieut. Charles L. Schliecker, Range Officer.
1st Lieut. Claude B. Thompson, Assistant Communications Officer.
1st Lieut. Robert L. Ainsworth, Assistant Engineering Officer.
2nd Lieut. John L. Fellows, Armament Officer.
2nd Lieut. Harry B. Combs, II, Assistant Photo Officer.
2nd Lieut. Thomas E. Halpin, Assistant Supply Officer.
2nd Lieut. John H. Stark, Transportation Officer.
2nd Lieut. Alfred E. Bent, Assistant Transportation Officer.
2nd Lieut. Stanley E. Jamellier, Assistant Range Officer.
2nd Lieut. Virgil W. Vaughn, Assistant Operations Officer.
2nd Lieut. James B. Morris, Publicity Officer.
2nd Lieut. Trow E. Sebree, Assistant Liaison Officer, Flight "B."

- By 2nd Lt. James B.Morris, Colorado N.G. Air Corps.

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"SUPER FLYING FORTRESS AT LANGLEY FIELD"

The Army's "Super Flying Fortress," technically known as the B-15, arrived at Langley Field, Va., on August 6th. It was piloted by Lieut. Colonel Robert Olds, with Major E.R. McReynolds and Captain R.F. Travis as members of the crew. The addition of this airplane to the B-17's of the 2nd Bombardment Group will make possible further tests in long range bombing, similar to those conducted in the past by this Group.

On August 11th, Lieut. Colonel Olds flew the B-15 to Miami, Fla., to greet the flight of B-17's, led by Major Vincent J. Meloy, returning from Bogota, Colombia. Radio communication was established as Colonel Olds and the "Good Will" flyers converged on Miami, and the rendezvous was made over the city.

While taking delivery at Wright Field of the B-15, Lieut. Colonel Olds tested the new P-36 with opposite rotation propellers. He was deeply impressed with the successful torque counteraction at high diving and maneuvering speeds.

SECOND BOMBARDMENT GROUP ACTIVITIES

Cadets from the United States Military Academy, West Point, New York, witnessed on August 17th a bombing demonstration by the 2nd Bombardment Group on Plum Tree Island. The future generals observed the demonstration from a dock at Messick, approximately one mile from the target, and were quite impressed with the accuracy of the bombardiers from Langley Field.

Enlisted personnel attending the Bombardiers' School are nearing the completion of their course. Their improvement in bombing, as evidenced by their accuracy, proved a source of much gratification to the Group Commander.

The 49th Bombardment Squadron recently had a distinguished visitor in the person of Major General George C. Marshall, from the Office of the Chief of Staff, Washington, D.C., who witnessed bombing training by the organization. General Marshall was well pleased with the results of a mission flown in a B-17.

The 49th Bombardment Squadron now has possession of the XB-15 airplane, the Army's largest Bomber, and is at present running a series of tests with the aid of the National Advisory Committee for Aeronautics.

Captain I.R. Hazen, Air Reserve, who is the Senior Airlines Inspector for the U.S. Government in the Chicago district, was on inactive status with the 20th Bombardment Squadron for the period from August 8th to 20th, receiving familiarization and transition flying training on four-engine type of aircraft.

Touching on some of the high-lights incident to the recent visit of the Langley Field personnel to Bogota, Colombia, the Correspondent of the 49th Bombardment Squadron relates that Lieut. Freeman tried his Spanish on the cooks at the place where the flyers were quartered. He said: "Today I am going to get scrambled eggs instead of the customary fried eggs." Into the kitchen charged Lieut. Freeman. After about five minutes of din from the kitchen, he reported to officers at the breakfast table that "we are going to have scrambled eggs." As soon as he was seated, the maid brought in a box of matches. Then, in about five more minutes, arrived the eggs - but fried as usual, not scrambled.

During the ball given in the opera house in President Santos' honor, one of the Langley Field officers saw one of his friends in a box down in the second tier near the President's box,

and he headed in that direction. Upon his arrival at the rear of the box, he started to pass two soldiers. They tried to stop him, but not this man. He entered, pushed his way to the front of the box and found himself shaking hands with the new President of Colombia, much to his surprise and amazement.

"Even we have one-eyed Connollys in the Group," adds our Correspondent.

Because on his previous trip to South America he had to go to a police station in order to find out where he lived, Lieut. "Headset" Tucker, Communications Officer of the 49th Squadron, to guard against a repetition of such an occurrence, wrote the address of the residence of the flyers and pasted same in his hat.

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ADDITIONAL OFFICERS FOR THE AIR CORPS

Effective October 6, 1938, the commissioned strength of the Army Air Corps will be increased by 61 officers, all of whom are graduates of the U.S. Military Academy, West Point, N.Y., and are now attending the Air Corps Advanced Flying School at Kelly Field, Texas.

Special Orders of the War Department, recently issued, announce the transfer of these officers to the Air Corps on the above mentioned date and their assignment to the stations indicated for duty, effective upon the completion of their course of flying training at Kelly Field. These duty assignments are as follows:

To Langley Field, Va.:
- Alan D. Clark, Coast Artillery Corps
- Harvey C. Dorney, Cavalry
- Gale E. Ellis, Signal Corps
- Richard P. Klocko, Corps of Engineers
- Robert F. Lesser, Field Artillery
- John D. Stevenson, Corps of Engineers

To Hamilton Field, Calif.:
- Sam W. Agee, Jr., Field Artillery
- Woodrow W. Dunlop, Infantry
- George L. Holcomb, Corps of Engineers
- Maurice A. Preston, Cavalry
- Robert Taylor, 3d, Coast Artillery
- Kenneth S. Wade, Signal Corps

To Mitchel Field, N.Y.
- John F. Batjer, Field Artillery
- Horace Greeley, Infantry
- Samuel C. Gurney, Jr., Cavalry
- Kenneth O. Sanborn, Infantry
- Lawrence A. Spilman, Cavalry
- Whiteford C. Mauldin, Signal Corps (to the 97th Observation Squadron)

To March Field, Riverside, Calif.:
- Donald B. Brummel, Quartermaster Corps
- Jack N. Donohew, Corps of Engineers
- Malcolm Green, Jr., Infantry
- Robert H. Herman, Coast Artillery Corps
- Gordon C. Leland, Infantry
- Curtis R. Low, Coast Artillery Corps
- William E. McDonald, Cavalry
- Floyd J. Pell, Cavalry
- Charles B. Westover, Field Artillery

To Selfridge Field, Mt. Clemens, Mich.:
- William R. Clingerman, Jr., Corps of Engineers
- John G. Eriksen, Field Artillery
- Morton D. Magoffin, Infantry
- Charles W. Stark, Jr., Infantry
- John R. Ulricson, Cavalry

To Barksdale Field, Shreveport, La.:
- William G. Hipps, Cavalry
- Joseph A. Miller, Jr., Infantry
- Ivan W. McElroy, Field Artillery
- Charles A. Sprague, Cavalry
- Harry F. van Leuven, Field Artillery
- Harold B. Wright, Corps of Engineers

To the Hawaiian Department:
- Richard R. Barden, Signal Corps
- William J. Cain, Jr., Infantry
- Render D. Denson, Infantry
- Conrad H. Diehl, Jr., Field Artillery
- Jasper N. Durham, Infantry
- Walter Eckman, Corps of Engineers
- Marshall R. Gray, Infantry
- Richard H. Hackford, Coast Artillery Corps
- Harry E. Hammond, Field Artillery
- Thomas A. Holdiman, Quartermaster Corps
- Bruce K. Holloway, Cavalry
- Nils O. Ohman, Corps of Engineers
- James T. Posey, Infantry
- Charles L. Robbins, Coast Artillery Corps
- Alvord Rutherford, Coast Artillery Corps

To the Philippine Department:
- Jack E. Caldwell, Infantry
- Richard W. Fellows, Cavalry
- William K. Horrigan, Field Artillery

To Fort Lewis, Washington:
- Wilbur H. Stratton, Cavalry, to the 91st Observation Squadron

To Moffett Field, Calif.:
- Thomas E. Powell, Infantry, to the 82nd Observation Squadron

All of the above-named officers are second lieutenants and members of the June 12, 1937, graduating class from the U.S. Military Academy.

Three other officers, due to graduate from Kelly Field in October, and who are transferred to the Air Corps on the 6th of that month, are 1st Lieuts. Charles J. Bondley, Jr., Coast Artillery Corps (assigned to Langley Field, Va.); John T. Mosby, Infantry (assigned to the 16th Observation Squadron, Fort Bragg, N.C.) and Robert M. Lee, Cavalry (assigned to the 12th Observation Squadron, Fort Knox, Ky.)

All three of these officers are West Point graduates, Lieut. Bondley graduating June 12, 1934; Lieut. Mosby, June 12, 1935, and Lieut. Lee, June 11, 1931.

One other member of the October graduating class at Kelly Field is Captain John A. Tarro, Air Corps, who already holds the flying ratings of Airship Pilot, Balloon Observer and Airplane Observer, and who will receive his fourth rating, that of "Airplane Pilot," upon his graduation. Captain Tarro goes to the 22nd Obs. Squadron, Brooks Field, Tex.

THE OCTOBER, 1938, CLASS AT RANDOLPH FIELD

Thus far a total of 228 candidates have qualified for appointment as Flying Cadets and are slated to report at the Air Corps Primary Flying School at Randolph Field, Texas, on October 10th, next, to begin training with the October, 1938, Class.

Of the above 228 candidates, 16 are enlisted men of the Air Corps, 8 are enlisted men of other branches of the Regular Army, and the remaining 204 are from civil life. Other students who will begin flying with the October Class are 113 second lieutenants of the Regular Army who graduated from the U.S. Military Academy, West Point, N.Y., on June 14, 1938. The names of these officers were published in the August 1, 1938, issue of the Air Corps News Letter.

It will thus be noted that so far 341 students have been selected for the October entering class at Randolph Field.

The candidates selected for Flying Cadet appointments are enumerated below, as follows:

CIVILIANS

Roberts, Donald Eugene	Bessemer, Ala.
Williams, Arbery Rudolph	Birmingham, Ala.
McKoy, David Owen	Cullman, Ala.
Woodward, John	Ft. McClellan, Ala.
Powell, Lester S., Jr.	Gadsden, Ala.
Wilson, William Driver	Gadsden, Ala.
Campbell, Charles Clay	Helena, Ala.
Caton, Curtis Eugene	Montgomery, Ala.
Cook, Earl Brown	Montgomery, Ala.
Bowen, Ferrell Lamar	Tallassee, Ala.
Fant, Richard O., Jr.	Tuscaloosa, Ala.
Campbell, Murry Oates	Cane Hill, Ark.
Ainsworth, Woodrow L.	El Dorado, Ark.
Whitaker, Andrew Wesley	Fort Smith, Ark.
Leidy, Charles A., Jr.	Little Rock, Ark.
McAllister, Eugene W.	Little Rock, Ark.
Nickels, Clabourne Woodrow	Little Rock, Ark.
Tedder, Irby V.	Little Rock, Ark.
Mann, Lewis Ray	Wilson, Ark.
Viverette, Donlyn	Berkeley, Calif.
Rains, Lawrence Fossitt	Blythe, Calif.
Williams, James Rhue	Clovis, Calif.
Bennett, Donald K.	Los Angeles, Calif.
Close, Winton Ralph	Los Angeles, Calif.
Cofield, Curtis H.	Los Angeles, Calif.
Murray, Samuel Fenton	Palo Alto, Calif.
Merritt, Ralph L.	Sacramento, Calif.
Bayley, Harry Moore, Jr.	San Francisco, Calif.
Reisner, John Arthur	San Francisco, Calif.
Hall, Floyd D.	Boulder, Colo.
Barr, Clifton Franklin,	Colorado Springs, Colo.
Nowells, Richard Wright,	Colorado Springs, Colo.
Wallace, Oliver Ernest	Denver, Colo.
Dittrich, Robert Ivan	Bridgeport, Conn.
Ciccalone, Thomas James	East Hartford, Conn.
Pratt, Ogden Nelson	Hartford, Conn.
Greco, Ralph Louis	Kensington, Conn.
Wood, George Alexander	Wallingford, Conn.
Newton, Preston Carroll	Washington, D.C.
Renshaw, Claude D.	Gainesville, Fla.
Epperson, Douglas H.	Lake City, Fla.
Rickett, Robert Edward	Atlanta, Ga.
Jones, Allen, Jr.	Columbus, Ga.
Marshall, John Donald	Savannah, Ga.
Poulson, Paul, Jr.	Boise, Idaho
Hays, Samuel Wahl	Champaign, Ill.
Kemp, Edward Knowlton	Champaign, Ill.
Robinson, Charles Gordon	Champaign, Ill.
Lee, James L.	Chicago, Ill.
Lien, James O.	Chicago, Ill.
Scheid, John Morrell	Chicago, Ill.
Siddall, James Joseph	Chicago, Ill.
Smith, Wayne G.	Chicago, Ill.
Sullivan, Frank Edward	Chicago, Ill.
Woltanski, Thaddeus Lewis	Chicago, Ill.
Beardsley, Henry Lindorf	East St. Louis, Ill.
Lang, William H.	Galesburg, Ill.
Stevenson, Roger Armstrong	Lebanon, Ill.
Roberts, Albert Jay, Jr.	Ottawa, Ill.
Postlewaite, Robert D.	Palestine, Ill.
Whitehurst, Junius Prentice	Peoria, Ill.
Floyd, Harold	Tamalco, Ill.
Street, Harold Mead	Walnut, Ill.
Stevenson, Stanley Ray	Centerpoint, Ind.
Warren, Clarence Negley, Jr.	Indianapolis, Ind.
Swinehart, Marion Louis	South Bend, Ind.
Wray, Robert Stephen	Cedar Rapids, Iowa
Bair, Robert Yarnell	Des Moines, Iowa
Parsley, Harold Vincent	Hornick, Iowa
Kempf, Russell Elton	Iowa City, Iowa
Leffingwell, Charles Edwin	Iowa City, Iowa
Eyres, William Gordon	Le Mars, Iowa
Myers, Edward Payson	North Liberty, Iowa
Sonnkalb, Charles D.	Postville, Iowa
Ford, Eugene Matthew	West Bend, Iowa
Crow, Roger McKee	Fredonia, Kans.
Pollom, Lester Winner	Topeka, Kans.
Tarter, Heber Dana	Mintonville, Ky.
Davis, Eugene	Noxanna, Ky.
Winterbottom, James M.	Alexandria, La.
Dew, William Edward	Shreveport, La.
Frost, Robert Vernon	Norway, Me.
Fairfield, Loren Redford	South Portland, Me.
Tower, John R.	Easton, Md.
Moore, Alvan Neavitt	Queen Anne, Md.
Avery, Arthur Chester, Jr.	Amherst, Mass.
Blakely, Carl Paul	Boston, Mass.
Regan, Paul Gerard	Boston, Mass.
McGrath, John Francis, Jr.	Jamaica Plain, Mass.
Johnson, Phillip H., Jr.	Milton, Mass.
Walden, David Carroll	Milton, Mass.
Metropolsky, Nicholas N., Jr.	Salem, Mass.
Brennan, Humphrey Charles	Watertown, Mass.
Finneran, John F., Jr.	Worcester, Mass.
Frederick, Julian Ross	Ann Arbor, Mich.
Alexander, Donald Martin	Detroit, Mich.
Jensen, Walter A.	Birmingham, Mich.
Bash, Robert Edwin	East Lansing, Mich.
Kaiser, William Francis	Flint, Mich.
Patterson, Warren B.	Houghton, Mich.
Moffat, William H.	Leonard, Mich.
Stanton, Robert L.	St. Joseph, Mich.
Farrell, Max Everett	Cass Lake, Minn.
Wall, Marvin R.	Minneapolis, Minn.
Johnson, William Edward	St. Paul, Minn.
Musselwhite, William B.	Jackson, Miss.
Barns, James Harrison, III	Boonville, Mo.
Thornton, James Logan	Cape Girardeau, Mo.
McCorkle, Leon M.	Salisbury, Mo.
Hauk, Paul Ignatius	Malta, Mont.
Larson, Robert Sherman	Thompson Falls, Mont.
Ward, Warren Leonard	Auburn, Neb.
Watkins, Howard Elroy	Grant, Neb.
Richardson, John LaVerne	Lincoln, Neb.
Hoffman, John Joseph	Omaha, Neb.

Fuetsch, Frederic Theodore	Reno, Nev.
Neal, Robert	Rochester, N.H.
Planscen, John Louis	Belleville, N.J.
Walmsley, William W.	Montclair, N.J.
Manukas, George N.	Trenton, N.J.
Moss, Thayer D.	Westville, N.J.
Wood, William Johnston	Albuquerque, N.M.
Selby, David Collins	Anthony, N.M.
Wilson, Keith S.	Bolivar, N.Y.
Kappil, Louis Charles	Elmira, N.Y.
Petrie, James G.	Flushing, N.Y.
Joiner, Eugene Burton	New York, N.Y.
Mallinson, Hiram Royal	New York, N.Y.
Hutchinson, William W.	New York, N.Y.
Mullen, Marcus Alfred	New Rochelle, N.Y.
Bear, Charles F.	Syracuse, N.Y.
Spoers, Charles Frederick	Syracuse, N.Y.
Wheeler, Warren Sanford	Hickory, N.C.
Hellickson, Dale E.	Medora, N.D.
Hoffman, Frederic Grant	Alliance, Ohio
Woolery, Edward Raymond	Columbus, Ohio
Kelley, Robert Madison	Hamilton, Ohio
Pomeroy, Don A.	Lakewood, Ohio
Hawley, John Robert	Toledo, Ohio
Turner, Carl C.	Altus, Okla.
Parrish, Johnny	Anadarko, Okla.
Hale, Samuel Peck, Jr.	Ardmore, Okla.
Hoffman, Charles Calvin	Dewey, Okla.
Banker, John J.	Frederick, Okla.
Hubbard, Edward Francis	Frederick, Okla.
Berry, Gleneth Boyd	Humphreys, Okla.
Porter, Stuart Moss	Muskogee, Okla.
Trosper, Earl Joseph	Oklahoma City, Okla.
Showalter, Frank M.	Reno, Nevada
Colt, Freeling T.	Allentown, Pa.
Shively, Albert Elijah	Minisink Hills, Pa.
Miller, Robert Hunter	Patton, Pa.
Sewell, Robert, Jr.	Rydal, Pa.
Reed, James Franklin	State College, Pa.
Anderson, George Frederick	Swarthmore, Pa.
Brownell, William Smith, III	Newport, R.I.
Garragher, Francis Dean	Providence, R.I.
Peckham, Arthur E., Jr.	Waverly, R.I.
Eaddy, Edward Allen	Johnsonville, S.C.
Vereen, Lindsey Hartford	Little River, S.C.
Boatwright, Lewellyn T., Jr.	Ridge Spring, S.C.
Davidson, Robert Carl	Sioux Falls, S.D.
Bright, Kyle Cecil	Afton, Tenn.
McConnell, Landon Edward	Bristol, Tenn.
Davis, Richard Archer, Jr.	Springfield, Tenn.
Long, Eugene M.	Beaumont, Texas
Schenck, Carman H.	Fort Worth, Texas
McKemie, Jack F.	Hearne, Texas
Nendell, Jack A.	Randolph Field, Texas
Luna, Bigham F.	San Antonio, Texas
Tillspaugh, Herbert J., Jr.	Bridgeland, Utah
Olson, Christian Garth	Payson, Utah
Smith, Charles John	Rutland, Vt.
Peters, Herbert W.	Appalachia, Va.
Travis, Frank H., Jr.	Lexington, Va.
Lackey, John Herbert, Jr.	Norfolk, Va.
Sherman, James Christian	Newport News, Va.
Venable, Eugene Roane	Roanoke, Va.
Harrell, Richard O., Jr.	South Boston, Va.
McElroy, Stephen Davenport	Upperville, Va.
Simmons, Harold Ernest	Seattle, Wash.
Towler, Harry H., Jr.	Seattle, Wash.
Flowers, Noel Quentin	Silverdale, Wash.
Henry, Norman Arthur	Spokane, Wash.
McFarland, Donald L.	Spokane, Wash.
Sanders, Richard G.	Yakima, Wash.
Coleman, Lee Browning	Buckhannon, W. Va.
Lowman, William Morris	Buckhannon, W. Va.
Spotts, Oscar Francis	Keyser, W. Va.
Sutton, John Liggett	Mill Creek , W. Va.
Dawson, James Stenger	Morgantown, W. Va.
Milestone, LeRoy M.	Argyle, Wis.
Lyle, Carl Wentland	Ripon, Wis.
Raab, Hilary A.	Laramie, Wyo.
Wood, Frank Lee, Jr.	Laramie, Wyo.
Miller, Charles Reed	Newcastle, Wyo.
Doyle, Raymond Wesley	Sheridan, Wyo.
Moore, Malcolm A.	Kolcs, Kauai, T.H.

ENLISTED MEN, AIR CORPS

Palm, Lorrill A. (Pvt.) Visalia, Calif.
6th Pursuit Squadron, Schofield Bks., T.H.

Lynnton, Keith Xavier (Pvt.) Miami, Fla.
8th C.A. Air Corps Det., Lordsburg, N.M.

Pavel, William T. (Pvt.) Berewyn, Ill.
Base Hqrs. and 3d Air Base Squadron, Selfridge Field, Mt. Clemens, Mich.

Shea, James Howard (Pvt.) Springfield, Ill.
Base Hqrs. and 3rd Air Base Squadron, Selfridge Field, Mt. Clemens, Mich.

Russell, Howard W. (Pvt.) Lebanon, Ky.
12th Obs. Squadron, Fort Knox, Ky.

Hendrix, James M. (Pvt.) Trotwood, Ohio
Base Hqrs. and 9th Air Base Squadron, Moffett Field, California.

Stenglein, Joseph A. (Corp.) Seneca Falls, N.Y.
Base Hqrs. and 1st Air Base Squadron, Langley Field, Va.

Kidd, John Leslie Bristow, Okla.
13th Attack Squadron, Barksdale Field, La.

Ray, Clyde A. (Pvt.) Nowata, Okla.
53rd School Squadron, Randolph Field, Texas

Davis, Clovis Gleen (Pvt.) Willow, Okla.
12th Observation Squadron, Fort Sill, Okla.

Johnson, Vernon Chris (Pvt.) Lapine, Ore.
Base Hqrs. and 4th Air Base Squadron, March Field, Riverside, Calif.

Sienko, Henry P. (Pvt.) Lake Como, Pa.
Hqrs. and Hqrs. Squadron, Chanute Field, Ill.

Ols, George Joseph (Pvt.) Windber, Pa.
Base Hqrs. and 4th Air Base Squadron, March Field, Riverside, Calif.

Stone, Rolle E. Etowah, Tenn.
1st Depot Squadron, France Field, C.Z.

Gustafson, Herbert John (Pvt.) Seattle, Wash.
1st Weather Sqd. Det., Hamilton Field, Calif.

Herbes, Edward (Pvt.) Milwaukee, Wis.
3rd Air Base Squadron, Selfridge Field, Mich.

ENLISTED MEN, OTHER BRANCHES OF SERVICE

Strong, William Dupont Blakely, Ga.
Private, Infantry.

Chitty, Charles Dean, Jr. Fort Gaines, Ga.
Pvt., Hqrs. 3rd Engineers, Schofield Barracks, T.H.

Frizzell, Tedrow B. Brunswick, Mich.
Corp., Co. H, 29th Infantry, Ft. Benning, Ga.

Thompson, Joe C. Shivers, Miss.
Pvt. Hqrs. and Hqrs. Battery, 2nd Battalion, 1st Field Artillery, Fort Sill, Okla.

Ellis, Herbert S. Elizabeth, N.J.
Corp., Hqrs. Battery, 62nd Coast Artillery, Fort Totten, New York.

Matthews, William H. Brooklyn, N.Y.
Corp., Headquarters Battery and Combat Train, 1st Bn., 62d Coast Artillery, Fort Totten, New York.

Allen, William Hubert — Portland, Ore.
Pvt., West Point Preparatory School, Fort Winfield Scott, Calif.
Houda, Eugene W. — Kimball, S.D.
Hqrs. Troop, 4th Cavalry, Fort Meade, S.D.

Additional Civilians

Oviatt, Karl Eugene	Preston, Idaho
Doherty, Joseph Michael	Oak Park, Ill.
Holm, Florian	Hays, Kans.
Burke, Richard Patrick	Newburyport, Mass.
Clinkscales, Theodore Rose	Greenville, S. C.

For the second consecutive time, Illinois, with a total of 29 students, has taken the lead in the matter of State representation among all of the students in a new entering class at the Air Corps Training Center. Other States which are represented by five or more students are: New York, 23; California, 16; Alabama, Massachusetts, Oklahoma and Pennsylvania, 14 each; Michigan, 13; Iowa, 12; Arkansas and Ohio, 11 each; New Jersey and Virginia, 9 each; Connecticut, Georgia, Tennessee and Washington, 8 each; Kansas and Texas, 7 each; Mississippi, 6; Colorado, Florida, Indiana, Kentucky, Louisiana, Minnesota, Missouri, West Virginia and Wyoming, 5 each.

Keeping in step with her State, Chicago leads the cities represented in the new class with 10 students. Other cities represented by three or more students are Little Rock, Ark., 5; Los Angeles, Calif.; Washington, D.C.; New York City and Seattle, Wash., 4 each; Champaign, Ill. and Detroit, Mich., 3 each.

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'HAM' RADIO STATION AT SELFRIDGE FIELD

Under the supervision of the Base Communications Officer, Lieut. R.O.S. Akre, Air Corps, an amateur ('Ham') radio station, W8RVE, has been licensed by the Federal Communications Commission and established at Selfridge Field, Mt. Clemens, Mich., and is being operated by both the Selfridge Air Base and First Pursuit Group communications personnel who have secured the necessary amateur licenses.

Numerous schedules have been worked with other amateurs throughout the United States and other parts of the world. To date the most distant point worked has been Australia. The Hawaiian Islands and Cuba have been worked also. In fact, several messages from Hickam Field, Oahu, T.H., to friends in the United States have been delivered.

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CHANGES AT CLARK FIELD, P.I.

There have been a great number of changes at Clark Field, P.I., since the departure of the 3rd Pursuit Squadron and the advent of the 28th Bombardiers, and the "shaking down" process is still in progress. This is a natural result of a complete change in officer personnel and of the variance in the requirements of the departed Pursuit Squadron and the incoming Bombardment squadron. Headquarters building is being repainted, and the painting of walls and the sanding of floors in the barracks are slowly progressing. The 20th Air Base and the 28th Squadron men are now separated in barracks, and uniformity in arrangements of bunks, lockers, etc., is being sought.

The Clark Field organization, with department heads, is as follows:

Major Guy L. McNeil, Commanding Officer;
Captain J.P. Kirkendall, Adjutant;
1st Lieut. Wendell W. Bowman, Operations and Communications;
1st Lieut. Hunter Harris, Jr., Armament and Athletics;
1st Lieut. Stanley J. Donovan, Utilities and Transportation;
1st Lieut. Leon R. Brownfield, Air Corps Supply;
1st Lieut. David N. Motherwell, Engineering;
2nd Lieut. Paul E. Todd, Supply and Mess;
2nd Lieut. Edward W. Maschmeyer, Air Reserve, aide to the American High Commissioner McNutt.

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PERSONNEL NOTES

The following-named second lieutenants of the Air Reserve have been placed on active duty for a period of two years from October 3, 1938, and assigned to station at Randolph Field, Texas:

James Orrin Beckwith, Waterville, Me.
Walter Leigh Hawkins, Oklahoma City, Okla.
Robert John Koster, Cincinnati, Ohio.
Alvin John Henry Mueller, Jr., Seguin, Texas.
Claud Alton O'Quinn, Atlanta, Ga.
Frederick Hayes Postal, Chicago, Ill.
Cloyce Joseph Tippett, San Francisco, Calif.

Lieut. Colonel Lester T. Miller, Air Corps, has been relieved as a member of the General Staff, from assignment to the War Department General Staff and from further duty in the Office of the Chief of Staff, Washington, D.C., and assigned to duty in the Office of the Chief of the Air Corps.

Announcement was made in War Department Special Orders of the temporary appointment of Lieut. Colonel George H. Brett, Air Corps, to the grade of Colonel, with rank from June 1, 1938.

Upon the completion of their present tour of duty in the Hawaiian Department, the following-named Air Corps officers are assigned to stations, as follows:

Major Charles E. Branshaw to the Rockwell Air Depot, Coronado, Calif.
First Lieuts. Samuel C. Mitchell and Paul E. Ruestow to Mitchel Field, N.Y.

Major James F. Powell has been relieved from duty at Wright Field, Ohio, and assigned as Air Corps Procurement Planning Representative at Cleveland, Ohio.

Master Sergeants John Hallam, Fort Sill, Okla., and William A. Hixson, of Base Headquarters and 1st Air Base Squadron, GHQ Air Force, Langley Field, Va., have been placed on the retired list at their respective stations, effective September 30, 1938.

23RD BOMBARDMENT SQUADRON FLIES INTERESTING MISSION
By the News Letter Correspondent

On the morning of August 11th, approximately 35 officers and men of the 23rd Bombardment Squadron, stationed at Hickam Field, T.H., participated in one of the most interesting missions in their experience since arriving in the Hawaiian Department. A squadron flight to French Frigate Shoals had been scheduled for some time, but inclement weather for the few days just prior to the flight made take-off plans doubtful. However, weather forecasts were favorable and the morning of the 11th dawned bright and clear.

After a final check on the weather report and positions of surface vessels along the route, five B-18's with combat crews, guns, and bombs, took off at 0845 under the command of Major Harold W. Beaton. At 0925, the personnel in the planes could see Kauai nestling under a heavy blanket of clouds a few miles to the right of the course. Shortly thereafter the Squadron flew directly over little known Niihau.

Flying along in brilliant sunshine at 8,000 feet, a darker shadow than usual was noticed under the clouds about 15 miles to the right. Continued observance proved that this was Nihoa, a tiny island or rock rising from the sea and inhabited only by wild life. About an hour more of flying over low clouds brought tiny Necker Island into view at 1105.

Everyone began craning their necks about that time, as the destination was only a short ninety nautical miles away. Within half an hour a long curving line of breakers and white water appeared dead ahead. Tiny sand spits dotted this breaker line, and as the Squadron continued its westerly course low sand hills and one or two brush covered bars appeared. The largest of these had a tiny wharf and a barn on it, the only sign to indicate that man had ever been there before. The Squadron arrived over the largest of these sand bars at 1133 and spent about fifteen minutes circling the area at low altitude. Birds seemingly countlessand large turtles appeared to be the only live things on this tiny spot of land in the middle of the Pacific.

After giving the area the once over, the Squadron picked up a course for Necker Island, opened up the formation and performed individual bombing approaches on the island. Each ship dropped a practice bomb on this barren spot and then rejoined the formation and headed for Oahu.

By this time all members of the flight were beginning to expect the few check points available to appear on the horizon at the proper time, and sure enough, thanks to the navigators, Nihoa, Niihau, and Kauai all passed beneath the wings at the proper time. At this time, to inject still another problem into the mission, Major Beaton in the lead plane gave orders to take up the Squadron formation for penetration of a bad weather area. His orders called for assembly on the lead plane after all planes had descended safely through the simulated overcast. After assembly, the gunners were given a chance to unlimber their machine guns and to spray the blue Pacific with lead.

After approximately 7 hours in the air, the Squadron landed at their home airdrome, Hickam Field, secure in the knowledge that they had seen land (and water) not previously seen by Army personnel from land type airplanes. The mission constituted the longest over-water mass flight of Army airplanes ever attempted in the Hawaiian Department. It shows the defensive and offensive possibilities of land based aircraft in the Hawaiian Islands.

Of all the personnel making the flight, the greatest credit should go to the navigators who hit their destination and ETA's (estimated time of arrival) right on the nose. According to their calculations, the Squadron covered the 550 miles out at an average speed of 204 miles an hour. The return trip was made in a more leisurely fashion, with the Squadron participating in various phases of training.

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FIELD TRAINING FOR 72ND BOMB. SQUADRON

The 72nd Bombardment Squadron in the Hawaiian Department recently completed an intensive two weeks' training course at Bellows Field and, although a good time was had by all, the Squadron as a whole was glad to return to its home base.

Ground and aerial gunnery was run off with dispatch, and most of the men made scores as good as could be expected. Bombing was another of the training requirements which was performed daily, weather permitting. There were a few rainy days, but most of the time it was cool and comfortable. The swimming, volley ball and soft ball games which were indulged in during off duty hours contributed towards making the stay at the camp an enjoyable one. In fact, it was only the pestiferous mosquito what in any way marred an enjoyable two weeks.

The News Letter Correspondent compliments Sergeant Swendrowski and his kitchen staff on the excellent food which was served throughout the stay of the Squadron at Bellows Field.

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CONSTRUCTION PROJECTS AT SCOTT FIELD

Announcement was recently made by the Honorable Harry H. Woodring, Secretary of War, of details of the plans for the expansion and development of Scott Field, Belleville, Ill., in order to provide for the Headquarters of the GHQ Air Force. Major General Frank M. Andrews, Commanding General of the GHQ Air Force, will move his headquarters units and personnel from Langley Field, Va., to Scott Field as soon as the necessary new construction can be completed. The headquarters of the Second Wing and various units of that wing will remain at Langley Field.

At Scott Field the headquarters of the GHQ Air Force will be more strategically located than at present. The headquarters personnel will be within a few hours' flying distance from all of the combat elements of the Air Corps in continental United States. The transfer will place the command of the GHQ Air Force more nearly at the geographical center of the United States, instead of on the Atlantic Coast as at present.

In order to provide permanent accommodations for the units now at Scott Field and those to be sent there with the GHQ Air Force headquarters, it will be necessary to rebuild the post. Architecturally the new buildings will, in general, conform to the Georgian designs used successfully at many other military posts. Structures such as the GHQ and Post Headquarters, the Administration Building, the barracks and the hospital will be of fireproof construction. The hangar and the industrial buildings will be of steel frame construction. A large portion of the work will consist of the construction of extensive runways and the facilities now regularly provided at modern airfields.

The following new essential installations will be provided:

Two barracks to provide for 330 enlisted men.

NCO Quarters to provide for 32 noncommissioned officers.

Officers' Quarters to provide for 62 married and 10 bachelor officers.

1 GHQ and Post Headquarters Administration Building.

1 Hangar, 250 x 500 feet, with shops.

Quartermaster utilities, including warehouses, garages, gasoline and oil storage.

New runways, apron, taxiways and night lighting.

1 Hospital.

1 Fire and Guard House.

1 Ordnance Magazine.

1 Gymnasium and Service Club, including a Post Exchange.

Quarters will be provided at Scott Field for the Commanding General, GHQ Air Force, and the various necessary staff officers for the operation of the GHQ, also the necessary administrative and maintenance personnel to permit efficient exercise of command by the GHQ Air Force and to operate, maintain and supply the aircraft which makes this the most mobile Headquarters in the United States Army.

Other work to be done will include the dismantling of the airship hangar now on the field, since it is situated on the landing field and creates a flying hazard; the dismantling of the present airship mooring mast, also a flying hazard, and such additional projects as installation of a water tank and supply lines, sewage lines, electrical distribution system and heating plants.

The entire post will be fenced, and suitable air beacons will be erected. The estimated total cost of the new construction is $4,857,400.

Scott Field is now the station of the following organizations:

21st Balloon Group Headquarters,
15th Observation Squadron,
Base Headquarters and 7th Base Squadron,
Detachments of Ordnance, Signal Corps, Finance Department, Medical Department, and Quartermaster Corps.

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AMERICAN LEGION CONVENTION PARADE

As a result of a further study of Army training activities that are to be conducted during the ensuing month, in which the participation of the Air Corps is essential, the Secretary of War, the Honorable Harry H. Woodring, reluctantly reached the conclusion that it will be necessary to reduce the participation of the Air Corps in the American Legion National Convention Parade at Los Angeles, Calif., on September 20, 1938, below that announced heretofore.

It is now contemplated that the units participating will include the First Wing, which is stationed on the Pacific Coast, Brigadier General Delos C. Emmons, Commanding; the Second Bombardment Group from Langley Field, which is equipped with twelve of the famous "Flying Fortresses"; and the "Super Flying Fortress" recently delivered to the Army Air Corps.

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Field Training for 72nd Bomb. Squadron

(Continued from Page 8)

The moving of the Squadron to and from the field was accomplished with a minimum of delay and inconvenience. Everything went off according to schedule, and there were no accidents of any kind.

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A WEEK AT MITCHEL FIELD

Notes from a West Point Cadet's Diary

First Day:

Some 150 of us took off for Mitchel this morning in a convoy of about twenty trucks. Bunched ten to a truck in neck-chafing dress grey uniforms, we spent most of the windy ride playing mathematical games and staring back at inquisitive townspeople. Breezing through New York's red traffic lights and out over the Tri Bridge through the World's Fair site, we reached the field at noon. Immediate unpacking and a hurried selection of bunks was followed by a greatly enjoyed dinner in the barracks mess. In a half-hour introductory talk by Captain Rodieck we discovered, to our unconcealed pleasure, that we were to be treated as honored guests, and that West Point was miles away in every sense of the expression. Mitchel Field took on additional glamor.

The afternoon found us scattered over the length and breadth of Long Island. Some of the more air-minded couldn't resist the allure of their new flying suits, and consequently Captain Wilson and Lieut. Cunningham played aerial taxi-driver throughout the afternoon and evening. For a few of us, these were the first flights we had ever taken.

Second Day:

A screaming whistle turned us out of our cots at 6:15 a.m. After breakfast, Colonel Hanley extended us a cordial official welcome in the Post Theatre. Lieut. Tibbetts then spoke amusingly and very informatively on "Safety and Parachutes." An inspection of the various types of airplanes assembled on the line occupied the remainder of a highly interesting morning.

Release from quarters followed a delicious chicken dinner. The cadets spent the free time until taps in voluntary flying, swimming, playing tennis and golf, and escorting their visitors all over the island.

Third Day:

Our first scheduled flying day found half of us taking ground instruction during the first period and flying during the second - the other half reversing the procedure. The Bombers (B-10's and B-18's) made familiarization flights to Bridgeport, West Point, Manhattan, Sandy Hook, and return. Riding in these big ships was smoother than in a Pullman, but some of the cadets lost their breakfasts(in paper bags) none the less. The other types of planes - primary and basic trainers, attack ships and observation ships - flew locally, acquainting us with maneuvers, acrobatics and personal use of the controls. The detached carefree sensation, the augmentation of vision, and the feeling of great power at the fingertips when handling the controls make flying unlike anything else in the world.

The ground instruction consisted of a tour of the Base Headquarters with an explanation of the problems involved in operating a flying field efficiently, and an inspection of machine guns and bomb racks at the hangars.

After a long afternoon lecture on "Bombs and Bombing," about forty of us went over to the Seversky Aircraft Plant on an inspection tour. Since the factory was just closing for the day when we arrived, we had the run of the place. Supper was served in sandwich form out in front of the factory.

We had an opportunity to do night flying in Bombers this evening out over Manhattan, Coney Island and Jones Beach.

Fourth Day:

A slight haze cut down visibility this morning. We inspected the Engineering Laboratory, dope shop and parachute department before flying. Assignments changed today to allow us to fly in different planes so that everyone would get a flight in each type of ship at the field.

The altitude is beginning to get us - we feel sleepy every time we get back on the ground now. This was especially noticeable during a long lecture on Aerial Navigation this afternoon. The subject was interesting, but the struggle to keep awake proved somewhat distracting.

The cadets without engagements had the evening brightened at 9:00 p.m. by a parachute flare used in a night landing demonstration with a B-10B Bomber.

Fifth Day:

A thick, low-hanging fog grounded cadets all day. Instruction was confined to an absorbing lecture on "Weather and Meteorology" and an inspection tour of the Photographic Laboratory, where we saw the huge cameras used in mapping and tactical work, the developers, enlargers, printers, and the jigsaw puzzle mosaic work. The day being free from lunch until taps, most of us passed the time very enjoyably at Jones Beach.

Sixth Day:

The ceiling lifted enough this morning to permit one period of flying. A bombing mission took some of us out to Montauk Point, Long Island, and back in B-10B's, flying at 7,000 feet most of the way. A demonstration of the Link Trainer, a miniature plane used in blind flying instruction, and instruction on a secret bomb sight trainer passed the

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time until lunch. A short but interesting lecture in Air Corps Communication brought the day's work to a close.

We inherited the Officers' Club this evening to enjoy a dinner hop, through the generosity of the officers of the post. A hilarious crowd of 250 femmes and cadets packed the place, getting their fill of fine food and music. Everyone had such a good time that the hosts almost had to push people out the door to make them leave when it was over.

Seventh Day:

With clear weather back, we had a full schedule today. Two days on the ground had put us behind in flying time; hence we found ourselves upstairs most of the day, the last cadet landing at 5:00 p.m. An innovation was "slick bombing" - we flew out over the North Shore and dropped bags of aluminum dust on the Sound, circling afterwards to let go sand-filled practice bombs by flights over the floating "slick." There was no ground school at all today.

Eighth Day:

In the air for the last time, we flew for one period to complete the week's schedule. Afterwards we packed to leave and policed the squad rooms. Another excellent meal topped off the week, and Mitchel Field became something to remember and something to look forward to seeing again - as one of her personnel.

-Richard deF. Cleverly
Clifford B. Haughton

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FLYING CADETS MAKE NIGHT FORCED LANDING

Flying Cadets Walter E. Arnold and John M. Knox, both students in the Pursuit Section of the Advanced Flying School, Kelly Field, Texas, had occasion to give exhibitions of their flying ability recently when they had forced landings at night.

Cadet Arnold's landing was near Bay City, Texas, where cross winds had carried him while he was engaged in an individual night navigation mission to Houston, Texas. He managed to land with the aid of flares without injury to himself. The landing gear and wing of his airplane were only slightly damaged.

Cadet Knox, also utilizing flares, made a safe landing at night near Beebe, Texas, where he was forced down when his oil line broke. The airplane was damaged to the extent of one battered wing.

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KELLY FIELD SOLDIERS AT PREPARATORY SCHOOL FOR ENTRANCE TO WEST POINT.

Five Air Corps enlisted men from Kelly Field, Texas, have been placed on temporary duty at Camp Bullis, Texas, to attend the West Point Preparatory School which opened there on September 1st.

Those who will thus compete for the Army appointments to the Military Academy next Spring are Privates W.R. Taliaferro and W.H. Havre of Headquarters and Headquarters Squadron, Privates W.H. Rancier and B.M. Sergeant of the Third Weather Squadron, and Private A.M. Hutchinson, of the 63rd School Squadron.

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ANOTHER TROPHY FOR LIEUT. DENSFORD

First Lieut. Charles F. Densford, Air Corps, flying instructor in the Observation Section of the Advanced Flying School, Kelly Field, Texas, recently added another trophy to his already large collection as proof of his skill with the pistol. During the sixth Mid-Summer Pistol Shoot of the Liberty Pistol and Rifle Club of San Antonio, he won the grand aggregate award with a total score of 1,057 out of a possible 1100. His nearest competitor scored 1,036. In this series of matches, Lieut. Densford had the distinction of winning two matches, taking second place in one and, in addition, being a member of the team winning first place in the entire shoot.

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NAVIGATION TRAINING IN 88TH SQUADRON

Lieut. G.E. Pierce, Air Corps, Navigation Officer and Instructor of the 88th Reconnaissance Squadron at Hamilton Field, Calif., is conducting a dead reckoning navigation school for the new officers in the Squadron. The ground instruction began on August 15th, and has been completed. The class is now in the midst of flying the navigation missions and is progressing rapidly.

Three B-18's and one OA-4C are being used for navigation missions. The B-18's carry two student navigators, both performing a mission on each flight. Thus, seven missions are flown every day. The missions are laid out for out-to-sea navigation, unless the ocean is covered by fog, in which case an alternate mission over land is performed.

The students taking the course are Lieuts. F.P. Bostrom, J.D. Whitt, H.O. Wangeman, C.L. Scott, Jr., G.R. Montgomery, R.L. Cobb, W.E. Bauge and F.T. Crimmins.

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Three Air Corps officers recently received temporary appointment to the grade of Major, viz: Captain Nathan F. Twining, with rank from September 1, 1938; Captains Ralph F. Stearley and Russell L. Williamson, with rank from September 3, 1938.

NEW TYPE OF GERMAN AIRPLANE LANDS AT WRIGHT FIELD

The Fieseler-Storch airplane, a slow-speed, fixed-wing aircraft, equipped with slots and flaps and other high-lift devices, manufactured in Germany, arrived at Wright Field, Dayton, Ohio, on September 9th, piloted by Emil Kropf, a German graduate engineer. The airplane had been on exhibition during the Cleveland Air Races, and the purpose of the visit to Wright Field was to duplicate a demonstration put on in Cleveland, showing comparative landing, take-off, and flight characteristics of the Fieseler-Storch airplane and the Army Air Corps autogiro, for the benefit of Materiel Division engineers who had not witnessed the demonstration in Cleveland.

The Fieseler-Storch is a so-called "safe airplane" development. This development is a continuation of the one started in this country by the Guggenheim safe airplane competition in 1929, which was won by the Curtiss Tanager airplane. Both the German airplane and the autogiro are powered with 225 horsepower motors.

The German airplane is being used in Germany at present for accomplishing slow-speed, military liaison missions.

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THE AIR RACES AT CLEVELAND, OHIO

Under a plan approved by the War Department, the Air Corps participated in the 1938 showing of the National Air Races at Cleveland, Ohio, September 3rd to 5th.

In addition to the air phase of the demonstration, furnished by the 27th Pursuit Squadron, 1st Pursuit Group, of Selfridge Field, Mich., there was a ground exhibit of nine airplanes, representing one each of the standard modern types now utilized by the Army Air Corps. These comprised an A-17, A-18, B-17, B-18, P-35, O-47, Basic Combat, BT-9 and Autogiro. The interest of the general public in the air equipment of the Army was evident from the fact that more than 150,000 persons viewed this exhibit during the three days of the Air Meet. The Air Corps Materiel Division, Wright Field, Ohio, prepared attractive signs describing the planes, their performances and uses. In addition, Air Corps enlisted men were available as guides to answer the many questions of inquiring observers.

With respect to the air demonstrations of the Selfridge Field Pursuit pilots, it was generally agreed by both civilians and Air Corps officers present that a highly creditable performance was given by this unit. It was the first public appearance of a unit equipped with the Seversky, single-seater fighter. Fears had been expressed that the speed of this plane might make it difficult to give a performance within the limited confines of the airdrome and within the view of the spectators. It was not possible, of course, to match the close formation work and tight maneuvers demonstrated in former years by the P-12 and PB-2A types of Pursuit planes. Nevertheless, a highly representative group of formations were displayed, and the precise character of the flying which was demonstrated indicated an excellent state of training and good squadron leadership in the air. Major General O. Westover, Chief of the Air Corps, Army Representative at the Races, expressed himself as highly pleased with the performance of the Pursuit Squadron and congratulated Major Willis R. Taylor, Squadron Commander, and his men on their excellent work.

The Navy squadron, which had always joined with the Army and the Marine Corps in providing the Service representation at the Races, was not present this year. Navy officials stated that a defect had been discovered in some of the propellers on the fast little fighting ships of this squadron and, rather than risk a possible accident, it was decided to withdraw the entire squadron from the Air Races. And so the Navy was represented this year only by the Marine Squadron. As usual, the Marines brought a well trained unit of 18 planes to the Show and staged their normal demonstration of accurate and excellent formation flying.

The principal interest of the spectators seemed to center on the women entrants at the Races this year, if comments from the crowd and the enthusiasm displayed may be taken as a criterion. First, there was the arrival of Miss Jaqueline Cochran in her Special Seversky as the winner of the Bendix Trophy Transcontinental dash, which brought the huge crowd to their feet roaring with cheers.

A little bundle of femininity of about ninety pounds, a blonde German girl, was the next highlight. She demonstrated all the acrobatic maneuvers in the catalogue, including an outside loop, with her motorless glider. The accuracy of her air work and its versatility was only exceeded by the amazing accuracy of her landing. On the second day of the Races she landed within a fifty-foot circle, and on the other days she was within a few feet of it when her glider came to rest in front of the grandstand.

Two speed contests, the Greve Trophy Race, flown on Sunday, and the Thompson Trophy Race, flown on Monday (Labor Day), proved to be close competitions and were well flown. The Army flyers present were rooting for their old comrade, Leigh Wade, of 1924 World Flight fame, who was an entrant in the Thompson Trophy Race. Wade, however, lacked the necessary speed and finished fourth.

After the races and the performance of the women flyers, perhaps high points of spectator interest came when the German airliner "Nordwind," fresh from a Trans-Atlantic crossing, flew over the crowd, leaving a long trail of smoke from its four Diesel engines. The delayed parachute drops and the mass parachute demonstrations also pleased the crowd.

As usual, Cleveland proved a charming host to the air world at the Races. The Show seemed better organized than ever before, and there were numerous favorable comments on the showmanship displayed by the Air Meet officials in arranging the events so that they followed close on the heels of preceding schedules with clock-like precision. The excellent weather which prevailed conspired to combine with the admirable plant available at Cleveland to make the 1938 Air Races probably the most successful in history. A unanimity of opinion seemed to prevail that it was a striking and most successful air spectacle, fully worthy of its originators and sponsors.

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REUNION IN WASHINGTON OF WAR-TIME FLYERS

Remaining members of the 50th Squadron, A.E.F., who found the Lost Battalion in the World War, staged their annual reunion for the first time in the Nation's Capital, September 3rd to 6th.

From an original personnel of 350 men, including replacements, the Squadron now numbers 250 veterans, and it is the only World War aviation outfit with a continuous record of reunions.

Making their headquarters at the Continental Hotel, the veterans spent four busy days, which were taken up with business meetings, various social affairs, a pilgrimage to the Tomb of the Unknown Soldier and to the Tomb of George Washington, and sight-seeing tours.

The war-time flyers came from many parts of the United States, and numbered among them was Major Charles A. Pursley, Air Corps, now on duty at the Advanced Flying School at Kelly Field, Texas.

Saturday, September 3rd, was taken up mostly with the registration of delegates. A dinner dance was the social event in the evening.

The entire Sunday afternoon was devoted to a sight-seeing tour. There was a business meeting from six to eight, and then three banquets took place - one for the men, one for the women and the third for the sons and daughters of the veterans. A get-together dance followed these banquets.

At noon on Monday, Labor Day, the veterans wended their way to the Arlington Cemetery, where a wreath was placed on the Tomb of the Unknown Soldier. From there the veterans and their families repaired to the estate on the banks of the Potomac of Milton K. Lockwood, a member of the Squadron, where a luncheon was served. As a reminder to the veterans of the old army life, "Mickey" Lockwood arranged to have the food served from the rolling kitchens of the Engineer Post nearby - Fort Belvoir, Va. Lockwood also provided the only and annual casualty of the reunion. Every year, regularly, Seth Bowman, of Monroe, Mich., arrives with a new straw hat, and just as regularly "Mickey" steps on it. Stuck on the bulletin board, the crushed hat is an emblem and an assurance that both Seth and "Mickey" are in attendance.

The luncheon consisted principally of beans served A.E.F. style in Army mess kits by Sergeant Adam C. Farmann, of Fort Myer. Stew, coffee and rice pudding were "trimmings."

From the Lockwood estate the entire delegation went to Mount Vernon, where a wreath was placed on the Tomb of George Washington.

All hands returned to their headquarters in time for dinner and the entertainment which followed.

On Tuesday the delegation made a final round of sight-seeing, visiting the many public buildings in the Capital.

Next year the war-time flyers of the Observation Squadron which located the beleaguered "Lost Battalion" in 1918, will meet at Jackson, Mich., the home town of their newly-elected president, Harold Hanson.

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AIR ATTACHE FLIES TO NEW POST OF DUTY

Lieut. Colonel Ralph H. Wooten, Air Corps, probably bears the unique distinction of being the first Military Attache of the U.S. Army to fly to his post of duty in a foreign country.

Colonel Wooten, who until recently was a member of the War Department General Staff in Washington, was detailed as Air Attache to Bolivia and Chile, and chose an A-17 Attack airplane as his means of transportation to his new station. He left Bolling Field, D.C., on August 16th and, after a brief stop at Brownsville, Texas, departed for Albrook Field, Panama Canal Zone, via Guatemala City, Guatemala. He landed at Albrook Field on the afternoon of August 20th, and during his stay on the Isthmus he was the guest of Brigadier General George H. Brett, Commanding

(Continued on Page 14)

O B I T U A R I E S

Second Lieut. James Breathitt,III, Air Reserve, piloting a P-35 Pursuit plane, crashed in the vicinity of Glencoe, Ontario, Canada, on September 9, 1938, and was instantly killed. The cause of the accident has not been determined.

Lieut. Breathitt was born in Frankfort, Ky., January 1, 1913. He attended the Virginia Military Institute for two years, following which he graduated from the University of Michigan with a B.S. degree in Aeronautical Engineering and Engineering Mathematics. He next took a one-year course in Aeronautical Engineering at the Massachusetts Institute of Technology, Cambridge, Mass.

Qualifying for appointment as a Flying Cadet, he graduated from the Primary Flying School, Randolph Field, Texas, October 12, 1937, and from the Advanced Flying School, Kelly Field, Texas, February 16, 1938. He specialized in Pursuit Aviation and was rated as "Airplane Pilot" on February 16, 1938, and on that date commissioned a second lieutenant in the Air Reserve. Assigned to active duty at Selfridge Field, Mt. Clemens, Mich., he served as Assistant Engineering Officer.

Funeral services for the deceased Reserve officer were held on September 13 in Arlington National Cemetery. The honorary pallbearers were Major General Allen W. Gullion, Lieut. Colonel Floyd E. Galloway, Lieut. Colonel H.B. Smith, Colonel John Jewett, Edward and Charles Breathitt, M.G. Waddington and Stanley Waddington.

First Lieut. Harold L. Dietz, Air Reserve, died as the result of a crash in a BC-1 airplane at Easton, Pa., on the afternoon of September 11, 1938. The airplane nosed in upon circling the field after the take-off and caught fire following the crash. The cause of the accident has not been determined.

Lieut. Dietz was born in Bangor, Pa., September 2, 1908. He graduated from high school in his native city and attended the Emerson Institute, Washington, D.C., for one year. He was a member of the Pennsylvania National Guard for one year, and served as an enlisted man in the Army Air Corps, with station at Bolling Field, D.C., from April 16, 1931, to July 1, 1932.

Appointed a Flying Cadet in the Army Air Corps, Lieut. Dietz graduated from the Primary Flying School, Randolph Field, Texas, in March, 1933, and from the Advanced Flying School, Kelly Field, Texas, where he specialized in Bombardment Aviation, on June 29, 1933, on which date he was rated "Airplane Pilot" and commissioned a second lieutenant in the Air Reserve.

Assigned to extended active duty, he served with the 20th Bombardment Squadron at Langley Field, Va., to February 28, 1935, and with the 96th Bombardment Squadron at that station from September 3, 1935, to December 31, 1935, when he reverted to inactive status. He was promoted to the grade of first lieutenant, Air Reserve, August 6, 1936.

On November 15, 1936, Lieut. Dietz was placed on extended active duty for a period of three years, with station at Mitchel Field, L.I., New York. Later, in July, 1937, he was transferred to the Middletown, Pa., Air Depot, where he was on duty as squadron operations officer and as a transport pilot.

The Air Corps extends its deepest sympathy to the bereaved families and relatives of the deceased officers who died in the service of their country.

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Lieut. Colonel Wooten (From Page 13)

the 19th Composite Group.

Colonel Wooten was accompanied by his mechanic, Staff Sergeant Lecheay. He planned to fly to his destination, Santiago, Chile, following the Panagra route, and to make stops at Cali, Colombia; Guayaquil, Ecuador; Talara and Lima, Peru, and Antofagasta, Chile, en route.

Colonel Wooten's present assignment is his second one as Air Attache to a South American country, for he was on duty in Chile from 1929 to 1933.

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PERSONNEL NOTES

Orders assigning Major Harold W. Beaton to duty at Langley Field, Va., upon the completion of his tour of foreign service, have been amended so as to assign him to duty at Barksdale Field, La.

Master Sergeant Ruben St. John, of Base Headquarters and 2nd Air Base Squadron, GHQ Air Force, Mitchel Field, N.Y., was appointed Warrant Officer in the Regular Army, with rank from September 1, 1938. He remains on duty at his present station.

Major Joseph W. Benson was transferred from Randolph Field to Brooks Field, Tex.

The active duty tour of 2nd Lieut. Preston Patton Pender, Air Reserve, of Hendersonville, N.C., and now stationed at Langley Field, Va., was extended to December 8, 1939.

Second Lieut. Lawrence Rea Gibboney, Air Reserve, of Cincinnati, Ohio, was assigned to active duty at Randolph Field, Texas, to October 2, 1940.

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AIR CORPS NEWS LETTER

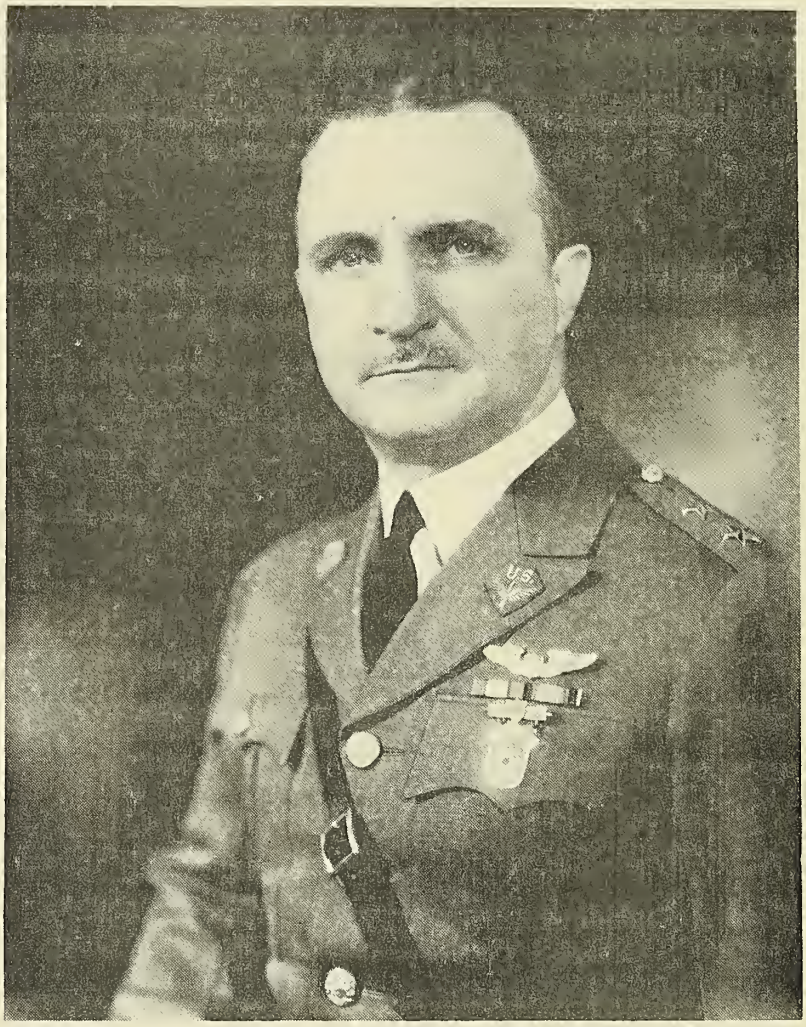


— AIR PARADE —
AMERICAN LEGION CONVENTION
LOS ANGELES, CALIF. SEPTEMBER, 1938

ISSUED BY
THE OFFICE OF THE CHIEF OF THE AIR CORPS
WAR DEPARTMENT
WASHINGTON

VOL. XXI OCTOBER 1, 1938 NO. 19

The Air Corps Mourns its Chief



Major General O. Westover

Chief of the Air Corps

Dec. 24, 1935 - Sept. 21, 1938

VOL. XXI AIR CORPS NEWS LETTER NO. 19.

Information Division
Air Corps

October 1, 1938

Munitions Building
Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard and others connected with aviation.

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THE LAST RITES FOR THE DEPARTED AIR CORPS CHIEF

Tuesday afternoon, September 27th, at the Arlington National Cemetery, proved a very sorrowful occasion, for it marked the final rites, with full military honors, for the late Major General Oscar Westover, Chief of the Air Corps, who lost his life in the unfortunate airplane accident at Burbank, Calif., on September 21st.

It was a bright, sunny afternoon - a day not at all attuned to an occasion of solemnity and sorrow. More than five hundred persons were present to pay their last respects to the deceased Air Corps Chief. These included all Air Corps officers on duty in the Office of the Chief of the Air Corps, other Air Corps officers on duty in Washington and at Bolling Field, and at nearby and distant Air Corps stations. Among those present from stations distant from Washington were Brigadier Generals A.W. Robins, Chief of the Air Corps Materiel Division, Wright Field, Ohio; Frederick L. Martin, Commanding the Third Wing, GHQ Air Force, Barksdale Field, Shreveport, La.; Barton K. Yount, Commandant of the Air Corps Training Center, Randolph Field, Texas; Colonels Henry B. Clagett, commanding Selfridge Field, Mich.; James E. Chaney, commanding Mitchel Field, N.Y.; Frank P. Lahm, Air Officer, 2nd Corps Area, Governors Island, N.Y.; John D. Reardan, Air Corps Procurement Planning Representative, New York City; Davenport Johnson, Chanute Field, Ill.; Herbert A. Dargue, Air Corps Tactical School, Maxwell Field, Ala.; Walter G. Kilner, Langley Field, Va.; Lieut. Colonels Carl Spatz, Langley Field, Va., and C.W. Russell, Hamilton Field, Calif.

In addition to the above, there were many officers from other branches of the military service; foreign government officials; and civilians, among them all of the employees of the Office of the Chief of the Air Corps.

Adjacent to the grave, which is in close proximity to the final resting place of the late Colonel Horace M. Hickam, Air Corps, who several years ago also lost his life in an airplane accident, lay a profusion of funeral wreaths. Shortly before the services at the grave, and while the minute-gun was sounding, so many additional wreaths were brought that, after a solid background was made of them some one hundred feet away, it was necessary to place others in front of the massed assemblage flanking both sides of the grave.

During the progress of the services at the Fort Myer Chapel, four formations from the GHQ Air Force at Langley Field, Va., totaling 43 planes, flew high over the grave, followed by a formation of four more fighting planes, with the customary blank file. This last formation detached itself from the main formation, circled the grave and then headed southward, soon to be lost in the distance.

The most solemn moment for those who were unable to attend the services at the Chapel came when the Fort Myer Band, playing Chopin's Funeral March, proceeded with slow, measured steps along the road and approached the grave. Close behind the band was the caisson bearing the casket, draped with the Stars and Stripes, followed by the pallbearers and honorary pallbearers, two companies of the 12th U.S. Infantry, one squadron from Bolling Field, D.C.; the Air Corps and other officers of the U.S. Army; the relatives of the deceased Air Corps Chief, and the foreign representatives.

President Roosevelt was represented at the services by Captain D.J. Callaghan, his Naval aide, and Colonel Edwin Watson, his military aide. Admiral William D. Leahy, Chief of Naval Operations, represented the Navy. He was accompanied by a number of other Naval officers.

General Malin Craig, Chief of Staff of the Army, marched at the head of the honorary pallbearers, and with him were Major General Frank M. Andrews, Commanding General of the GHQ Air Force, and Brigadier General Henry H. Arnold, Acting Chief of the Air Corps. The other honorary pallbearers, classmates of General Westover of the 1906 class of the U.S. Military Academy, of which General Andrews was also a member, were Brigadier General Earl McFarland, Assistant Chief of Ordnance; Colonel Joseph A. Green, Coast Artillery Corps; Colonel Charles G. Mettler, Ordnance Department; Colonels Harold W. Huntley and E. DeR.

V-7860, A.C.

Hoyle, Field Artillery; Colonel Alexander G. Gillespie, Ordnance Department, and Colonel Jonathan M. Wainwright, Cavalry.

The active pallbearers were noncommissioned officers of the Air Corps, stationed at Bolling Field, D.C.

Foreign officials who attended the services included General Friedrich von Boetticher, Military and Air Attache, Germany; Group Captain George C. Pirie, Air Attache, Great Britain; Lieut. Colonel Andrzej Chramiec, Military and Air Attache, Poland; Engineer Colonel Norbert Champsaur, Air Attache, France; Colonel Vincenzo Coppola, Military and Air Attache, Italy; Squadron Leader Ismael Sarasua, Air Attache, Chile, and several other Chilean officers; Colonel Pedro L. Zanni, Military and Air Attache, Argentina; Colonel Ivan Leontovich Okunev, Assistant Military Attache, and Mr. Constantine A. Oumansky, Counselor and Charge d'Affaires, U.S.S.R.; and Colonel Masafumi Yamauti, Military Attache, Japan.

Before the grave stood General Westover's widow, and on one side of her their son, Lieut. Charles B. Westover, and on the other side their daughter, Mrs. Wilhelm C. Freudenthal. Lieut. Westover is a member of the class scheduled to graduate from the Air Corps Advanced Flying School, Kelly Field, Texas, on October 5, 1938.

Chaplain Ora J. Cohee officiated at the services at the Fort Myer Chapel, and just before he officiated at the grave, a 13-gun salute was heard from the distant Fort Myer parade ground. When the Chaplain concluded his prayer, the firing squad fired three volleys, and the bugler sounded "Taps."

Among the messages of condolence received by the Secretary of War, the Hon. Harry H. Woodring, on the occasion of the tragic death of General Westover, were those from --

Hon. Claude A. Swanson, Secretary of the Navy;

Lieut. Col. A. Chramiec, Military Attache, Embassy of Poland;

Mr. Alexander P. DeSeversky, of the Seversky Aircraft Corporation;

Mr. Thesbac Piccy, of the Society of British Aircraft Constructors, London;

Mr. Guy Lachambre, Air Minister, Paris, France;

Mr. Handley Page, of London, Eng.;

Chief of the Air Staff Air Ministry, London, Eng.;

Colonel I. Okunev, Assistant Military Attache, Union of Soviet Socialist Republics;

Mr. J.T. Hartson, Vice President of the Glenn L. Martin Company, Baltimore, Md., on behalf of Mr. Martin and his whole organization;

Mr. M.M. Mell, Chairman of the Aeronautics Committee, Akron, Ohio, Chamber of Commerce;

Lieut. Colonel E. Lombard, Military Attache, French Embassy;

Mrs. W.B. Kester, President of the Women's Chapter of the National Aeronautic Association of Akron, Ohio;

Mr. Grover A. Whalen, President of the New York World's Fair, 1939, Inc.;

S. Molokov, Chief of the Civil Aviation of the U.S.S.R. and Mavriky T. Slepnev, Chief of the Inspection of the Civil Aviation, U.S.S.R., Moscow.

Mr. Radu Irimescu, Minister, Roumania.

The Turkish Ambassador, Mehmet Munir Ertegun, called in person to express his sincere sympathies.

Among messages of condolence received by the Chief of Staff, General Malin Craig, were those from --

Brigadier General W.P. Upshur, U.S. Marine Corps, Acting Major General Commandant;

Mr. Vilhjalmur Stefansson, of New York, for himself and for the Explorers Club;

Major Jose Bina Machado, Brazilian Military Attache;

Colonel I. Okunev, Assistant Military Attache, U.S.S.R.;

Admiral William D. Leahy, U.S. Navy.

The Hon. Louis Johnson, Assistant Secretary of War, received messages of condolence from --

Mr. Alexander P. DeSeversky, on behalf of himself and the entire personnel of the Seversky Aircraft Corporation;

Mr. Howard Hughes;

Mr. J.T. Hartson, Vice President of the Glenn L. Martin Company, on behalf of Mr. Martin, himself and the entire organization.

Messages of Condolence received through the Foreign Liaison Section of G-2, War Department General Staff, were from --

Colonel R.V. Read, Military Attache, British Embassy;

Engineer Colonel Norbert Champsaur, Air Attache, French Embassy;

Colonel Vincenzo Coppola, Air and Military Attache, Italian Embassy;

Colonel Pedro Zanni, Military and Air Attache, Embassy of Argentina;

Colonel M. Yamauti, Military Attache, Imperial Japanese Embassy.

The French Air Ministry, Paris, France.

General Craig also received a letter of condolence from Mr. John Oliver La Gorce, Vice President of the National Geographic Society, on behalf of himself and the officers and staff of that Society.

The German Military and Air Attache, Lieut. General Friedrich von Boetticher, called in person to express his condolences.

Brigadier General Henry H. Arnold, Acting Chief of the Air Corps, received a message from Vice Admiral Meyrick, of

the British Royal Navy, commanding North American and West Indies Squadron, conveying his sympathy and that of the officers and men in HMS YORK.

Among other messages and letters of condolence received by General Arnold were those from --

Vice Admiral Ernest J. King, Commander Aircraft Battle Force, San Diego, Calif.

Admiral R.R. Waesche, Commandant, U.S. Coast Guard.

Air Vice Admiral George M. Croil, Royal Canadian Air Force.

Major General E.S. Adams, The Adjutant General, U.S. Army.

Major General David L. Stone, Panama Canal Department.

Major General Hugh A. Drum, U.S. Army, on behalf of the Second Army and the 6th Corps Area.

Brigadier General George Gruenert, U.S. Army, Fort McKinley, P.I.

Brigadier General Guy V. Henry, U.S.A., Commandant, on behalf of all personnel of the Cavalry School at Fort Riley, Kans.

Admiral A.B. Cook, Bureau of Aeronautics, U.S. Navy Department.

Hon. Clarence D. Martin, Governor of the State of Washington

Hon. F. Trubee Davison, New York City.

Lieut. Colonel Ralph Royce, Philippine Department.

Lieut. Colonel Benjamin G. Weir, Panama Canal Department.

Lieut. Colonel William B. Mayer, on behalf of all personnel of Scott Field, Belleville, Ill.

Major David S. Seaton, A.C., on behalf of all officers and employes of the Philippine Air Depot.

Captain Saba' H. Sueyro, Argentine Naval Attache.

Group Captain Pirie, British Embassy.

Dr. Lyman J. Briggs, Director, National Bureau of Standards.

Major Reed G. Landis, Chicago, Ill.

Mr. Grover Loening, New York City.

Mr. Frank H. Russell, Newtown, Pa.

The 18th Wing, Air Corps, Hawaiian Department.

The B.F. Goodrich Company, Akron, Ohio.

Clark Aircraft Corporation, Hagerstown, Maryland.

Douglas Aircraft Company, Santa Monica, Calif.

Bellanca Aircraft Corporation, New Castle, Del.

Bell Aircraft Co., Buffalo, New York.

Interstate Aircraft and Engineering Corp., El Segundo, Calif.

Curtiss-Wright Corporation, Buffalo, New York.

Kellett Autogiro Corporation, Philadelphia, Pa.

Pennsylvania Aircraft Syndicate, Philadelphia, Pa.

Ryan Aeronautical Co., San Diego, Calif.

United Aircraft Corporation, East Hartford, Conn.

Wright Aeronautical Corporation, Paterson, New Jersey.

American Airlines, Inc.

Stearman Aircraft Co., Wichita, Kans.

Pittsburgh Screw & Bolt Corporation.

Editor, AVIATION Magazine.

Chamber of Commerce, Denver, Colo.

Chamber of Commerce, Ogden, Utah.

Chamber of Commerce, Sacramento, Calif.

Manufacturers Aircraft Association,

Southern California Section of the Society of Automotive Engineers.

Northwest Aviation Planning Council.

Aeronautical Chamber of Commerce, New York City.

Air Reserve Officers Association, Louisville, Ky.

National Broadcasting Co., New York City.

Sperry Gyroscope Company, Brooklyn, New York.

Acting Chief, Weather Bureau, U.S. Department of Agriculture.

Colonel Sumpter R. Smith, Chairman, Air Safety Board, Civil Aeronautics Authority, Washington, D.C.

Major General Mason M. Patrick, U.S. Army, Retired, former Chief of the Air Corps, attended the funeral services at Arlington, and Major General James E. Fechet, U.S. Army, Retired, who succeeded General Patrick as Air Corps Chief, forwarded a message of sympathy.

According to a newspaper report, less than 24 hours before his death, General Westover had been feted by some one thousand fliers in Los Angeles at the "Men With Wings" aviation ball in the Palomar ballroom. This was during the course of the Annual Convention of the American Legion. Surrounded by high officers of the Army, Navy and Marine air force units and veteran air fighters of the World War, the General was the center of a night of tribute to the nation's aerial fighting squadrons.

Only some five hours prior to the fatal crash at Burbank, Calif., General Westover was at March Field, Calif., where he presented the coveted Daedalian Trophy for safe flying to the 19th Bombardment Group, commanded by Lieut. Col. Harvey S. Burwell, Air Corps. Also present on that occasion was Major General Frank M. Andrews, commanding the GHQ Air Force.

A test pilot for the Lockheed Aircraft Corporation, who was an eye-witness of the accident and was in the control tower at the field at that time, stated that he saw General Westover's plane coming towards the airport from a southerly direction. The plane flew once across the airport and then headed out for a wide circle preparatory to landing. He then added:

"The ship was, I imagine, about 300 feet high and about a half mile northwest of the field when it went into a

hairpin turn. I was watching it all the time, as we always do in the tower whenever a ship comes in to land. The plane whipped into this steep bank and the wings were almost vertical to the ground. Suddenly I saw the entire ship quiver. I knew there was trouble ahead. The ship nosed downward in the start of a spin. The motor was still roaring; more so, it seemed to me, than before because, as usual, when a plane is starting to land the motor is throttled down. You could see that the pilot was fighting desperately to regain control of his ship. It all happened so quickly - there were just a few seconds between the time the ship started to slip off and the time it hit the ground - but I am certain that whoever was flying thought he could right the plane in time."

The plane struck with the roar of a bursting bomb in the front yard of a residence on Scott Road, less than half a mile from the Lockheed Aircraft Factory's airport, to which General Westover had been gliding for a landing.

One theory advanced as a possible cause of the accident is that the pilot, apparently unable to stretch his glide into the airport, jammed on "full throttle" and nosed it up in a climbing turn to clear power lines ahead. The probability that the landing flaps of the plane were lowered to give it maximum lift for a slow landing indicated that the lowered flaps may have been responsible for what happened in the harrowing seconds which followed.

The plane, nose high, stalled - hung almost motionless and quivering under the surging drive of its engine - then whipped over and nosed straight down in a roaring half turn of a power spin.

Majors Leland C. Hurd and K.B. Wolfe, Air Corps, were at the Lockheed Factory awaiting General Westover's arrival, and they reached the scene of the crash within a very few minutes after its occurrence. Brigadier General Delos C. Emmons, Commanding the 1st Wing, GHQ Air Force, appointed a board of officers, headed by Lieut. Colonel Harvey S. Burwell, which began an immediate investigation at the scene of the accident.

General Westover was born at West Bay City, Michigan, on July 23, 1883. After graduating from high school, he entered the Army as an enlisted man on September 4, 1901, and served with Company "K," 3rd Battalion of Engineers, until June 15, 1902, when he entered West Point as a cadet. He graduated from the U.S. Military Academy on June 12, 1906, and was assigned to the 14th Infantry.

General Westover remained with the Infantry through the grades of second and first lieutenant, in each of which he served five years. During this period he completed tours of duty in the Philippines and in Alaska. He was then assigned to duty at the United States Military Academy, where he served first as instructor and later as Assistant Professor of Drawing. His marksmanship won for him the Distinguished Marksman's Medal and membership on the Infantry Rifle Team at the National Rifle Matches at Camp Perry, Ohio, in 1911.

On October 20, 1917, he was promoted to the grade of Major (temporary) and assigned to duty in charge of the Signal Office at the Port of Embarkation at Hoboken, N.J. In June, 1918, he was assigned to the Bureau of Aircraft Production in charge of Storage and Traffic, receiving his promotion to Lieut.Colonel, Air Service, on August 14, 1918.

In November, 1918, he was appointed Assistant Executive, Bureau of Aircraft Production, Washington, D.C., which office he held until July, 1919, when he was appointed Executive in the Office of the Chief of Air Service.

General Westover's outstanding service during the World War was recognized by the award to him of the Distinguished Service Medal, and his promotion to the grade of Colonel (emergency) on May 24, 1919.

In October, 1920, General Westover was assigned to take training at Omaha, Neb., and at Ross Field, Calif. Upon graduation from the Balloon School at Ross Field, with the rating of Balloon Observer, in 1921, he was reassigned to duty in Washington as Chief of the Balloon and Airship Division, Office of the Chief of Air Service. While occupying this position, he served on detached duty to participate as aide to Colonel Frank P. Lahm in the National Balloon Race which started from Birmingham, Ala. He next attended the Airship School at Langley Field, Va., from which he graduated in 1922, and received the rating of "Airship Pilot." In that year he participated as pilot in the National Elimination Free Balloon Race at Milwaukee, Wis., and was declared the winner thereof. Landing his balloon in the vicinity of Lake St. John, Quebec, Canada, a distance of 866 miles from the starting point, which he covered in 16½ hours, he almost doubled the distance covered by his nearest competitor. His balloon flight was one of the longest and swiftest on record.

By virtue of his victory in the National Elimination Balloon Race, General Westover represented the United States in the Gordon Bennett Balloon Race, which started from Geneva, Switzerland, in August, 1922. In this race, while drifting low to obtain favorable winds, Hungarian peasants seized his drag rope and hauled the balloon to the ground, which resulted in his being eliminated from the race. This unusual mishap may be attributed to the mistaken notion of the Hungarian peasants that they were performing a service for the aeronaut.

In February, 1921, General Westover was appointed Director of Aircraft Pro-

duction, charged with the liquidation of the United States Spruce Production Corporation, a wartime aircraft production agency, a position which he held continuously up to July, 1928.

In 1924, General Westover was assigned as Executive Officer at Langley Field, Va., this following his graduation from the Air Corps Primary and Advanced Flying Schools in Texas, and his being given the rating of "Airplane Pilot." Later that year he became the Commanding Officer of Langley Field and the Commandant of the Air Corps Tactical School which was then located there. Two years later he entered the Tactical School as a student, graduating in 1927. His next school tour was at the Command and General Staff School at Fort Leavenworth, Kansas, from which he graduated in 1928. For the next four years he was on duty at Fort Leavenworth as a member of the faculty of the above mentioned school.

In January, 1930, General Westover received his promotion to Lieut. Colonel, and two years later, in December, 1931, his appointment as Assistant Chief of the Air Corps, with the rank of Brigadier General, to succeed Major General B.D. Foulois, who had vacated that position to assume his duties as Chief of the Air Corps.

General Westover possessed all four aeronautical ratings bestowed by the Air Corps, and his service was as well rounded as any officer in the Corps. In 1933 he commanded the Air Corps maneuvers at March Field, Calif., during which practically all of the modern conceptions of the employment of air forces were tried out. His summary of the lessons learned during this maneuver furnished a valuable contribution to the advancement of the tactics and supply procedure of the Air Corps. He also participated in the Command Post Exercises held in New Jersey in 1934, in the capacity of Commanding General, GHQ Air Force, These exercises were commanded by the then Chief of Staff, General Douglas MacArthur.

General Westover's sudden and untimely death was a severe blow not only to his immediate family, his other relatives and his host of friends both in the Army and in civil life, but to the United States Army as well.

The Air Corps mourns with the bereaved family the departure of this genial and kindly officer and gentleman who commanded such universal admiration and respect.

Technical Sergeant Samuel Hymes, Air Corps, who also lost his life in the distressing airplane accident at Burbank, Calif., on September 21st, was born in Philadelphia, Pa., on January 12, 1898.

He first enlisted in the Third Field Artillery, May 8, 1917. His next enlistment was in the Quartermaster Corps on September 17, 1919. Sergeant Hymes enlisted in the Air Corps on December 21, 1930, and remained continuously in that Corps until the time of his death.

Sergeant Hymes had been stationed at Bolling Field, D.C., continuously since August 11, 1930, when he returned from duty at Fort Stotsenburg, Philippine Islands. He served as crew chief for General Westover's plane for many years and accompanied his Chief on all of his many flights.

The deceased noncommissioned officer is survived by his widow and two minor children, to whom the deep sympathy of the Air Corps is extended.

Funeral services were held on Monday, September 26th, at the Fort Myer chapel, with Chaplain Ora J. Cohee officiating. Interment, with full military honors, was in the Arlington National Cemetery. Noncommissioned officers and troops stationed at Bolling Field, D.C., served as pallbearers.

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KELLY FIELD STUDENT KILLED IN ACCIDENT

By the Kelly Field Correspondent

Second Lieutenant Robert Fales Lesser, Field Artillery, a student in the Pursuit Section at the Air Corps Advanced Flying School, was fatally injured on September 15, 1938, when his P-12 spun in and crashed near the airdrome at Roswell, New Mexico, while he was participating in a student maintenance flight preparatory to graduation from the Air Corps Training Center.

Lieut. Lesser, a native of Newark, New Jersey, was graduated from the United States Military Academy in June, 1937, and reported at Randolph Field, Texas, for training in October of the same year. Coming to Kelly Field in June, 1938, he was assigned to the Pursuit Section for specialized training, and would have graduated from the Training Center on October 5th, his twenty-fifth birthday.

Second Lieutenant Samuel C. Gurney, Jr., a classmate of Lieut. Lesser at both the U.S. Military Academy and the Air Corps Training Center, escorted the remains to West Point, N.Y., for burial.

The entire Air Corps regrets exceedingly this unfortunate accident, and extends its most heartfelt sympathy to the family and friends of Lieut. Lesser.

A MESSAGE FROM THE CHIEF TO THE CORPS

Today, as I am taking over duties and responsibilities as Chief of Air Corps, U.S. Army, I want my first official expression to be a tribute to my able predecessor, Major General Oscar Westover, whose untimely loss has been a blow from which we shall not soon recover. His service as an enlisted man, as a cadet at West Point and as an officer through all the grades from Second Lieutenant to Major General is such as to command the sincere admiration and deep respect of every military man. His tremendous accomplishments during his too brief tour as Chief of Air Corps speak for themselves. They are a lasting monument to the long hours he spent in their execution. His honesty of purpose, complete sincerity, lasting loyalty, and steadfast attention to duty stand out as characteristics that we who are left may well use as a guide, a pattern and an inspiration. These qualities made him outstanding as a man, as an Army officer, and as Chief of Air Corps.

The present period in the history of our Air Corps is a trying one for officers and enlisted men alike. Everyone must put forth at maximum effort to meet the herculean demands incident to our expansion program. The GHQ Air Force has performed an efficient and commendable task of reorganizing our tactical units and raising to a high level their state of training. This has but served to emphasize the urgent need for more combat and maintenance crews. The air base forces must be greatly increased and in some cases created in order to properly operate and care for the airplanes now being produced as the result of high pressure work on the part of the Materiel Division. This necessitates that our Training Center, the Tactical School and the Technical School work at accelerated efficiency, mayhap at longer hours, and increase their output without lowering their present high standards.

Until quite recently we have had marked superiority in airplanes, engines and accessories. That superiority is now definitely challenged by recent developments abroad. This means that our experimental development programs must be speeded up.

This increased effort all along the line is essential if we are to build up our tactical units and supply them equipment in accordance with the War Department program. We of the Air Corps must realize that these results can be obtained only if we have complete accord and thorough coordination of our efforts.

H. H. Arnold

Major General, Air Corps,
Chief of the Air Corps.

Washington, D.C.
September 30, 1938.

THEY TAKE THE HIGH ROAD

By Theon Wright

By special permission from Collier's, The National Weekly

A man had to die before they realized what was wrong. And it was such a little thing that killed him, too. He didn't have enough energy to pick up an oxygen tube and shove it back in his mouth. When they found his body six miles below, he had strangled for want of air.

These were men you hardly ever heard about. They were men who went up where the air was thin and bright and "white blue" - where it was so cold their eyeballs froze in their sockets, and flying machines rolled crazily in mid-air like becalmed ships, suspended between the tug of gravity below and thinning air above. Then, blinded and gasping for breath, they tipped the nose of the plane downward and plunged for earth, sometimes dropping as much as five or six miles with their senses reeling from the strain and shock before they pulled out of the "blank."

You have heard of Lindbergh and Hughes and Balchen and Byrd; of Musick, Earhart, Post and Kingsford-Smith. They were the earth-shrinkers, who spread out over the four corners of the world, bringing them close together. But what of the men who went up - Schroeder, Macready, Foulk and Harris; Gray, Kelly, Souchek, Adam and Greene? Their names ring only faintly in the memory. It wasn't until one of them died that you remembered who he was or what he had been doing - and even then it seemed pretty silly, going way up there where there were no living things, and where nobody wanted to live, anyway. What was the use of it?

This year the highest award in aviation - the Collier Trophy, which goes not to that which is spectacular but to that which is sound - has recognized the use of it. The trophy has been awarded the United States Army Air Corps for demonstrating, for the first time in history, that it is possible to travel safely and comfortably in the substratosphere.

Unsung Heroes of the Air

The Collier Trophy, first awarded in 1911 by Robert J. Collier, son of the founder of Collier's, goes each year to "the greatest achievement in aviation in America, the value of which has been demonstrated by actual use during the preceding year." The names associated with it are the honor roll of aviation history: Curtiss, Wright, Sperry, Burgess, Loening, Hoffman, Reed, Lawrence, Martin, Pitcairn and Douglas; the U.S. air mail, the Army's "world fliers," Pan American's transpacific "clippers."

And now added to this historic list are the unsung heroes of the upper air, men of the Army Air Corps who have labored unceasingly, and for the most part anonymously, not for adventure nor danger nor just to see if it could be done but because the "upper level," as Collier's pointed out three years ago, is where all of us will be flying tomorrow.

The citation reads:

"To the U.S. Army Air Corps for having designed, constructed and completely equipped the XC-35 substratosphere plane, the first pressure cabin airplane to be flown successfully anywhere in the world."

Behind that somewhat prosy sentence is a story of courage, resourcefulness and death. And in its last chapter it is the story of the unflagging persistence of a small, nervously energetic man who started his career as a builder of bridges and would up as an airplane designer "because it was work that needed to be done." His name is Carl F.Greene, and he is an officer in the Air Corps stationed at Wright Field. Major Greene is one of those retiring gentry you seldom hear about - but every time you climb into a big sky-liner you will be riding on wings he helped to create, and when you step into the cabin of a stratoliner you will be riding in his idea. Major Greene got the idea quite a few years ago, when fliers were going up in open cockpit affairs that looked like box kites, and he has been nursing it along ever since.

Basically, the idea was simply to build an airtight airplane that could fly in the substratosphere, where the air is thin and pressure is low. But, like most simple ideas, it took years to find out just what was needed. At first everybody thought the problem was merely to supply oxygen to the men who went up into the rarefied air eight miles above the earth; and for nearly twenty years the Army Air Service worked on that problem - until they found they were on the wrong track!

Working Under Pressure

As early as 1920, Major Rudolph Schroeder climbed to 38,180 feet in an open-cockpit Packard-Lepere biplane, using a tube to suck oxygen from a tank, but his eyeballs froze, his senses "blanked out" and he fell six miles before he pulled out of it and brought his plane safely to earth.

The next year John A. Macready, a young Army lieutenant at McCook Field, Ohio, decided to find the "absolute ceiling" - for man and machine. His experiment was particularly valuable, because he wrote a record of everything that happened. He had taped a leather oxygen mask to his face and smeared gelatin - his only "de-icing" equipment - over his

goggles. At 35,000 feet the cold became so intense his goggles were coated with ice and his eyes began to freeze. At 39,000 feet he had passed Major Schroeder's mark and began to run into real trouble. His breath froze in the oxygen tube, clogging it with ice. He managed to tear off part of the tape on his face and shove in an emergency tube. He said every time he reached for something, he felt "dizzy and faint."

At 40,800 feet his plane bucked and refused to climb any higher. For five minutes it "swung and rolled in suspension" and Macready held it there, pitching and swaying in the icy air. Then, realizing he could go no farther, he pulled back the throttle and tipped the nose downward and the "bottom seemed to drop out of the plane as it went toward earth."

But it was the death of the Army balloonist, Captain Hawthorne C. Gray, that brought home the real problem in high altitude flying. Gray went up more than six miles in a balloon from Belleville, Illinois, in November, 1927, and died up there because his oxygen tube slipped from his mouth and he was too numb and blind to pick it up again. That started Army engineers to thinking - particularly the persistent little major at Wright Field. "We knew we had to operate at high levels," Major Greene explained, "and we knew that it was up to us to find all the answers. It was too easy for men to die the way Gray did."

Why did they have to go up in the first place? There was not much to see, except a pastel-blue sky and an awful chasm below; and it doesn't sound like very good sport. The answer is that the best flying conditions to be found anywhere - smooth air, increased speed, few storms, no icing hazards, perfect radio reception - are above 25,000 feet. Although the Army does not make a practice of revealing any of the military uses it will make of "upper-level operation" - the official Army term for high flying - it is pretty obvious what the factors are. Bombers would have greater speed for approach and escape, and would also be comparatively free from antiaircraft fire in the upper levels. Modern antiaircraft guns have little "aim effectiveness" above 15,000 feet. A projectile requires from eighteen to twenty-five seconds, depending on the angle at which it is fired, to reach the 20,000-foot level, and in that time it is possible for the target to veer away from the trajectory of the shell.

Altitude flight tests showed that human beings begin to show the effects of thinning air at 10,000 feet. Above 15,000 feet there is a definite need for aid to respiration. At 28,000 feet the need for oxygen is acute, and for years it was supposed oxygen taken into the mouth by a tube or through a mask was sufficient. But at 35,000 feet other things begin to happen. The blood starts to "bubble." There is a certain amount of nitrogen in solution in the human blood at all times, and when outside pressure suddenly is reduced, the effect is like pulling a cork out of a champagne bottle. The nitrogen collects as particles of free gas in the blood stream, and these tiny bubbles may find their way to brain cells or into the spinal fluid, where they are likely to bring on convulsions, paralysis or even death. As the outside pressure decreases there is a "pull" on the surface of the body. Above 43,000 feet no human can think and act rationally and reliably in the open air, even with the use of oxygen. It becomes apparent that pressure, not oxygen, was the problem to be solved.

The first attempt to solve this problem was a contrivance known as a "pressure suit," a sort of supercharged pair of overalls, made airtight by the use of rubberized parachute silk, with an aluminum helmet. Oxygen was fed into the helmet and air pumped into the suit. Wiley Post brought one of these suits to Wright Field in 1934, and an emergency squad from the Dayton police department was called out, with pulmotor, axes and saws, to stand by ready to rescue Wiley if it became necessary during the pumping-up tests. He wore the suit on his first attempted "stratosphere flight" in 1935, and an interesting scene took place when he made a forced landing near a desert town in California. Post pancaked his plane on Muroc dry lake, walked out in his "Man from Mars" haberdashery and scared the California natives out of a few years' growth.

A Problem of Compression

It was obvious that the pressure suit, at best, would take care of only one person, and the Army engineers hardly cared to envision the spectacle of a crew of a bombing plane, clad in pumped up stratosphere clothing, waddling around the inside of the ship attached by hoses to oxygen tanks and air blowers. So, while the fliers with their tin-can helmets and pumped-up clothing were pushing the "absolute ceiling" above 50,000 feet, the Air Corps went into action on the problem of building a non-leakable cabin that would maintain low-level pressure during high-level operation. Fortunately, at all altitudes the percentage of oxygen in the atmosphere is almost constant. The problem was to compress the air to low-level density.

It wasn't as easy as it sounds. Back in 1919 the Army Air Service had tried out the "pressure cabin" idea with a sealed tank in the cockpit of a DeHaviland observation plane. Lieutenant Harold Harris went up in it, and when he

came down his face, seen through the window of the tank, was streaming with perspiration and as red as a boiled lobster. He gestured frantically at the instrument panel. It showed a temperature of 150 degrees above zero and an "altitude" of 9,000 feet below sea level! The pressure control gadgets, Harris explained, had leaked.

Two other nations tried unsuccessfully to build a pressure cabin plane - France in 1932 and Belgium in 1936. The French plane, a Farman two-seater, went up 33,000 feet and started to come apart, and the Belgian plane, a 20-passenger Renard R-35, never completed its tests. The problem included "skin leaks" in the shell of the cabin, danger of the cabin blowing up under pressure, the difficulty of sealing doors, windows and holes through which control wires and rods must pass.

Outwitting the Elements

But finding answers to tricky aeronautical problems was Major Greene's dish. He had been at them ever since he joined the Army (in order to play hockey with the Seventh Regiment hockey team in New York) years before the war. He had initiated the design of the "monoplane wing" that was applied to the Martin bomber, which won the Collier Trophy in 1932. That wing revolutionized airplane building and ended the era of "kite" planes. If you look out of the window of any Boeing, Douglas or Lockheed skyliner of today, you will see something of Major Greene's handiwork in the wing that is holding you up.

After doping out what was wanted, Major Greene went to Lieutenant Colonel Oliver P. Echols, chief engineer at Wright Field, and laid his plan before him. It was to build a hermetically sealed airplane that would enable passengers and crew to ride in the substratosphere with all the comforts of sea-level flying. Colonel Echols dug out an appropriation from the Air Corps allotment and Brigadier General A.W. Robins, of the materiel division, supplied laboratories. It was all in the day's work to the Air Corps - another routine problem to be solved - but Major Greene knew he had aviation history by the tail.

He called in Dr. John E. Younger of the University of California, who had worked with him years before designing the "monocoque," or shell-type cabin. Theoretically, their problem was to apply theories of air cooling and building heating that had been in use, in one way or another, ever since the first cave man began fanning himself in summer and building fires in his cave in winter. There is a pressure of about 14.7 pounds per square inch at sea level, and at 30,000 feet it is 4.4 pounds. By pumping air under pressure in the sealed cabin with a supercharger, or "blower," the pressure difference could be equalized. Then, by use of a pressure regulator and a discharge valve to let out the air, a constant supply of Grade-A sea-level air would flow into the cabin.

By the spring of 1937 they had completed the preliminary stuff, and were ready for the main event. The new plane had been ordered from the Lockheed plant at Burbank, California. It was similar to the Lockheed Electra but built according to Army specifications. The plane was ferried to Wright Field to be tested for leaks - and here Old Man Disaster seemed to have put another "X marks the spot" on the record of pressure-cabin flying.

As the big silver cocoon was pumped up, it began to hiss, then squeal like a thousand peanut whistles. Workmen silently edged toward the exits. Even Major Greene regarded his baby a bit gingerly. Then he ordered the pumping to stop and crawled inside the big metal shell - and signaled for the pumps to start again. The leaks were found and repaired.

By midsummer the XC-35 was ready for its maiden flight into the substratosphere. Captain Alfred H. Johnson, a veteran Army flier, was picked to fly it. There was even a "brain tester" - Dr. Harold G. Armstrong of the Wright Field physiological research laboratory - to test the effect of high flying on the minds of the pilot and crew. With Major Greene and four members of the crew huddled in the sealed cabin they took off - with a stack of oxygen bulbs standing between them and suffocation if things went wrong. At 12,000 feet the superchargers were turned on.

The plane climbed to 28,000 feet - still with no oxygen being used. Captain Johnson then swung it down and landed, completing the first substratosphere flight on record without using an ounce of oxygen. Tests were conducted throughout the summer and fall at all levels from the ground up to 33,000 feet.

On February 3, 1938, the XC-35 prepared to make its first "passenger flight". A take-off was scheduled from Chicago at midnight; the plane was bound for Bolling Field, near Washington, with Louis A. Johnson, Assistant Secretary of War, as the passenger - and the flight was to go regardless of weather, to prove that it could be done. Ten minutes after the take-off the big strato-liner ran into an electric storm so intense that it picked up a halo of sparks along the leading edge of the wing. Climbing at the rate of 300 feet a minute, the monoplane soared up to 22,000 feet and over the storm. Traveling through the night at a 200-mile clip, it roared onward and landed at Bolling, completing a flight that would have been suicide for an ordinary air-liner traveling at ordinary flying levels.

V-7860, A.C.

At the conclusion of the tests, the Air Corps announced that the experiment was a success and that the strato-liner could be duplicated by any established commercial aircraft factory in the country. The Air Corps was then invited to submit its data to the Collier Trophy committee, headed by Major J.H. (Jimmy) Doolittle.

To a New Era of Flying

Major Greene was called before the committee to tell about the Army Air Corps' XC-35 - and he began by forgetting his speech! He laid a bundle of data on the committee table and explained, with some embarrassment, that he had "prepared some notes, but forgot to bring them."

"Never mind that," Doolittle said with a grin. "We're pretty hard-boiled in here - we don't go in much for speeches."

Major Greene left the room feeling that he had failed. But the committee wasn't composed of oratorical experts. It was made up of air-minded men - Major J.H. Doolittle; Dr. George W. Lewis, director of aeronautical research for the National Advisory Committee for Aeronautics; S. Paul Johnston, editor of Aviation; Leighton Rogers, president of the Aeronautical Chamber of Commerce; T.P. Wright; Henry B. Dupont; E.R. Stettinius, Jr.; William B. Mayo, and Edward P. Warner.

When the committee came out of the huddle, the men of the Army Air Corps had won the verdict. They had started out to solve a problem of military efficiency and turned in test results that pointed the way to a new era of flying. And they had, incidentally, vindicated the heroism of those early pioneers of the upper air who went up in box-kite flying machines, risking death or disablement in the cold and lifeless atmosphere of upper space, so that a later generation of engineers could solve their problem.

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AIRPLANE PROVES TOO TOUGH FOR CARABAOS

Tough as a Carabao may be, horns and all, though he may be "King" of the buffalo and resent the white man, he must still take the count of nine when he attempts to toss a P-26 over his back with those beautiful horns so characteristic of the water Buffalo. So sayeth Second Lieutenant Cecil E. Combs, Air Corps, who, much to his surprise, saw too late a couple of these animals as he was making a night landing on the airdrome at Nichols Field, P.I. The Carabaos had evidently been attracted by the floodlights, but being too bashful remained in the shadows outside the range of the floodlights. Result: they took the count of nine. Lieut. Combs was not injured and the P-26 Pursuit plane was slightly damaged.

SEVENTH BOMBARDMENT GROUP IN MANEUVERS

The 7th Bombardment Group of Hamilton Field, Calif., commanded by Major Dale V. Gaffney, Air Corps, and consisting of 15 B-18 airplanes, 37 officers and 100 enlisted men, was based at Felts Field, Spokane, Washington, during the maneuver period from August 8th to 15th, 1938.

The objectives of the maneuver as a whole were many. It was planned primarily for the exercise to serve as a test to determine the state of training of combat and service personnel and units, in conjunction with a test of the adequacy of present tactical equipment. By the scheduling of long range reconnaissance missions, an opportunity would be afforded for familiarizing the personnel with the terrain and available military facilities throughout the Pacific Northwest area.

By dint of pre-maneuver preparations, the concentration of airplanes and personnel at the Group's operating airdrome, Felts Field, was expeditiously effected on the afternoon of August 8th.

On the morning of August 9th, the Group participated in a reconnaissance of the principal cities and airdromes within the operating area. On the following day, the Group employed six airplanes in a bombing mission three miles off Cape Flattery, the targets being aluminum slicks.

The entire Group, consisting of 15 airplanes, took part in a bombing demonstration at Fort Lewis, Washington, on August 11th. Silhouette targets one mile east of the field were bombed from a high altitude with 300-pound practice bombs. The demonstration was said to have been very effective in displaying capabilities of the Air Force to the civilian populace.

The mission on August 12th was a long range reconnaissance and assembly problem. The flight covered a sizeable amount of territory in the States of Washington, Idaho, and Montana, and was, in effect, an excellent familiarization flight.

The entire day of Sunday, August 14th, was turned over to visitors, who were afforded an excellent opportunity to inspect the airplanes and equipment.

Evacuation and return to Hamilton Field on Monday, August 15th, concluded the Wing Maneuver. Valuable assistance and cooperation were rendered by the National Guard and Chambers of Commerce of that section.

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Master Sergeant Edcil C. Maxwell, of Flight B, 16th Observation Squadron, Fort Benning, Ga., was appointed a Warrant Officer in the U.S. Army, effective October 1, 1938. He will be assigned to duty with the Air Corps in the Panama Canal Department.

NEW OFFICERS FOR THE ARMY AIR CORPS

The War Department recently announced the appointment of 188 second lieutenants in the Air Corps, Regular Army, as of October 1, 1938. These appointments are the result of competitive examinations among Air Corps Reserve officers who are now or have been recently on extended active duty with the Air Corps.

Of these 188 new officers, 31 are assigned to Langley Field, Va.; 23 to March Field, Calif.; 21 to Barksdale Field, La.; 16 to Randolph Field, Texas; 13 to the Hawaiian Department; 11 to Selfridge Field, Mich.; 10 to Mitchel Field, N.Y.; 9 to Hamilton Field, Calif.; 7 each to Kelly Field, Texas, and the Panama Canal Department; 3 each to Moffett Field, Calif.; Marshall Field, Fort Riley, Kansas; and Brooks Field, Texas; 2 each to Scott and Chanute Fields in Illinois; and one each to Bolling Field, D.C.; Fort Knox, Ky.; Rockwell Air Depot, Coronado, Calif., and the Philippine Department.

The station assignments of these newcomers in the commissioned piloting ranks of the Air Corps, Regular Army, are indicated by numerals, the key to which is given below the list of names, viz:

Francis Henry Macduff (10)	Brockton, Mass.
Harold Lewis Jones (10)	Bath, Pa.
Arman Peterson (1)	Flagstaff, Ariz.
Herbert M. West, Jr. (1)	San Antonio, Texas
Francis Dodge Shoemaker (10)	Bethesda, Md.
Alvin Roubal Luedecke (14)	El Dorado, Texas
Henry Russell Spicer (16)	Los Angeles, Calif.
Willard Van Deman Brown (1)	Dallas, Texas
William Ray Boutz (16)	Deming, N.M.
William Haldane Councill (16)	Ingomar, Pa.
Kenneth Ray Kreps (11)	Riverside, Calif.
Peter Havens Remington (10)	Watertown, N.Y.
Patrick William McIntyre (11)	Chicago, Ill.
Donald William Haarman *	Brooklyn, N.Y.
Blaine Ballif Campbell (8)	Salt Lake City, Utah
Morris Henry Shedd (14)	Belleville, Ill.
Kermit Arthur Tyler (13)	Long Beach, Calif.
Mayhue Delbert Blaine *	Cranford, N.J.
Howard Fish Nichols (19)	Newark, N.J.
Philip Beeton Klein *	Dallas, Texas
Marion Malcolm (16)	Iowa City, Iowa
Fred'k Lawrance Moore (13)	Fillmore, Calif.
Charles Emlen Marion (10)	Detroit, Mich.
Ben Ivan Funk (11)	Wray, Colo.
Follett Bradley, Jr. (6)	Moffett Field, Calif.
Richard William Simons (10)	West Plains, Mo.
James Britt League,Jr. (9)	Greenville, S.C.
John Spencer Hardy (1)	Logansport, La.
Thomas Scott Algert *	La Jolla, Calif.
Harry Louis Donicht (14)	Glencoe, Minn.
Charles H. Stockdale (3)	Morgantown, W.Va.
Ladson G. Eskridge,Jr. (14)	Newberry, S.C.
Francis Harry Matthews (7)	Houston, Texas
Ryder Waldo Finn (7)	McCoy, Oregon
Robert Franklin Hardy (11)	Flint, Mich.
William Waring Miller *	San Diego, Calif.
Paul Wietzel Zehrung (18)	Dayton, Ohio
Arthur Jenkins Pierce (6)	Montague, Mass.
Robert Francis Worden (8)	Santa Fe, N.M.
Roy William Osborn (8)	Hankinson, N.D.
James Bradford Baker (18)	Bird Island, Minn.
William Grover Benn (10)	Washington, Pa.
Herbert Reed Volin (7)	Pittsfield, Mass.
Allan Thomas Bennett (19)	Wilmington, Del.
Henry G. Thorne, Jr. (19)	San Antonio, Texas
Wm. Albert Hatcher,Jr. (11)	Detroit, Mich.
Baskin R. Lawrence, Jr. (9)	Seneca, S.C.
Sam Philippe Triffy (9)	Niles, Ohio
Earl Bernard Young (9)	Sidney, Neb.
Robert Alva Ping (9)	St. Louis, Mo.
William Mason Reid (9)	Albany, Ga.
James Thomas Connally (11)	Waco, Texas
Jack Lincoln Schoch (10)	New Ulm, Minn.
Bernard Adolf Schriever *	Seattle, Wash.
Harold Ernest Watson (9)	Farmington, Conn.
Cy Wilson (16)	Hearne, Texas
Craven Clark Rogers (1)	Galveston, Texas
William Lewis Curry (9)	Raleigh, N.C.
Audrin Rotha Walker (8)	Pasadena, Calif.
Calvin Ely Peeler (14)	Corona, Calif.
James Oldham Ellis *	Berwyn, Ill.
Sven Harold Ecklund (11)	Los Angeles, Calif.
Robert Kay Martin (1)	Dayton, Ohio
John Beverly Montgomery (9)	Spartanburg, S.C.
John Hitt Eakin (9)	Natick, Mass.
John Allen Way (6)	Prague, Okla.
James Ferguson (1)	Whittier,Calif.
William Brewer Keese (16)	Wyoming, N.J.
Joseph Frederick Hunker (9)	West Point, Neb.
Martin Ansel Bateman (7)	Camden, S.C.
Robert Curtis Sexton (10)	Las Cruces, N.M.
William Bell David (9)	Calhoun, Ga.
Robert Francis Burnham(16)	Battle Creek, Mich.
Clyde Box (11)	Nevada, Texas
Edward William Ketcham (11)	Madison, S.D.
Chris H.Wm. Rueter (9)	Waco, Texas
Horace Armor Shepard (16)	Mobile, Ala.
Don Louis Wilhelm,Jr. (19)	Bryan, Ohio
Herbert Morgan, Jr. (9)	Freedom, Pa.
Franklin Kendall Paul (14)	Marriottsville,Md.
Ben Allen Mason, Jr. (8)	Houston, Texas
Raleigh Hunter Macklin *	Miami, Fla.
Graeme Stewart Bond (7)	Chicago, Ill.
Marcus Fleming Cooper*	Alameda, Calif.
Raymond Victor Schwanbeck (11)	Ash Fork, Ariz.
Robert Melville Caldwell (19)	Madison, Wis.
Joseph Abbott Thomas (7)	Vinton, Va.
Elbert David Reynolds (11)	Beaumont, Texas
Ralph Sheldon Garman (19)	Whittier, Calif.
Ernest F. Wackwitz,Jr. (16)	Springfield, Mass.
Marvin Christian Demler *	Williamsport, Pa.
Cecil Hampton Childre (16)	Weslaco, Texas
Jacob Jerval Brogger (9)	Butterfield, Minn.
Irvine Alfred Rendle (11)	Rawlins, Wyo.
Junius Waldo Dennison,Jr. (6)	Ojai, Calif.
James Linn Travis (11)	Portland, Ore.
Frank C. Parker, Jr. (9)	Norristown, Pa.
Ernest Wilbur Keating (1)	Blackwell, Texas
George Sutton Brewer (7)	Arcadia, La.
Irving Lewis Branch (7)	Glenbrook, Conn.
George Wilson Hazlett (9)	Tarentum, Pa.
Roy Edward Warren (7)	Birmingham, Ala.
James R. DuBose, Jr. (6)	Aiken, S.C.
Arthur Chas. Carlson,Jr. (11)	Jerome, Ariz.
William Eades (8)	Lexington, Ky.
Donald Wm. Eisenhart (16)	Culbertson, Neb.
Sam Maddux, Jr. (14)	Lawton, Okla.
Karl Lewis Polifka (13)	Watsonville, Calif.
Robert Reed Stewart (9)	St. Louis, Mo.
William Klahr McNown (9)	Lawrence, Kans.
Ted Sinclair Faulkner (6)	Seattle, Wash.
John Howard Payne (6)	Austin, Texas
Robert William Ryder (4)	Minneapolis, Minn.

Wilbur Danner Camp (1)	Arlington, Texas
Morris Pelham (1)	Anniston, Ala.
Avelin Paul Tacon,Jr. (1)	Mobile, Ala.
Conrad Joe Herlick (11)	San Bernardino, Calif.
Evart, Wilbur Hedlund *	LaGrange, Ill.
Paul Franklin Helmick (10)	Corvallis, Ore.
John Marks Ferris (6)	Detroit, Mich.
Robert Loughery Johnston (16)	Bellevue, Pa.
James John Roberts,Jr. *	East Orange, N.J.
Lloyd Atwood Walker,Jr. (7)	Los Angeles, Calif.
Arthur Wm. Schmitt,Jr. (11)	Madison, N.J.
Norris Perry (9)	Sedro-Wooley, Wash.
Kenneth Ray Martin (19)	Kansas City, Mo.
Maurice Edward Glaser (17)	Coronado, Calif.
Leroy Alex Rainey (8)	Oak Park, Ill.
Francis Eastham Brenner (1)	Waterville, Kans.
Edgar Milton Wittan (9)	Portage, Pa.
Robert F. Strickland (1)	Clio, Ala.
Ansley Watson *	Burbank, Calif.
Edward Gerald Hillery (9)	Boonton, N.J.
Thomas Ewing Margrave (9)	Gordon, Neb.
Bela Alan Harcos (9)	Los Angeles, Calif.
Henry Ovide Bordelon (11)	Marksville, La.
Edward Lewis Reid (16)	Little Rock, Ark.
Clyde Chas. Harris, Jr. (1)	Birmingham, Ala.
Jean Rogers Byerly (11)	Estes Park, Colo.
Herman Francis Lowery (1)	Hattiesburg, Miss.
Boyd David Wagner (19)	Johnstown, Pa.
Edward George Kiehl*	Brownsville, Texas
Earl Eugene Bates, Jr. (7)	Winnetka, Ill.
Arch Graham Campbell,Jr. (1)	Fort Worth, Texas
David Wade (16)	Minden, La.
J. Francis Taylor, Jr. (19)	Columbus, Ind.
Edward W. Maschmeyer (15)	Indianapolis, Ind.
Neel Earnest Kearby (19)	Dallas, Texas
Leonard Muir Rohrbough *	Roselle, N.J.
Ray Hamilton Martin (3)	Austin, Texas
Frod'k John Sutterlin (1)	Miami Springs, Fla.
Murray Alston Bywater (11)	Salt Lake City, Utah
Delmer Edward Wilson (11)	Ephrata, Wash.
Joshua T. Winstead,Jr. *	La Grange, Ill.
Charles Duncan Jones (1)	Jackson, Miss.
Ernest Haywood Beverly (9)	Laurinburg, N.C.
Jess Anders Smith *	Oakland, Calif.
George Edward Schaetzel (11)	Alhambra, Calif.
Frederic Grenville Huish (5)	Berkeley, Calif.
Claude Edwin Putnam, Jr. (1)	Jacksboro, Texas
Donald Root Strother *	Salt Lake City, Utah
Dale Leroy Anderson (9)	West Pittsburgh, Pa.
Eugene Carl Woltz (12)	Wichita, Kans.
Kenneth Wilbur Lawver	Freeport, Ill.
Elliott Hartley Reed (12)	Perry Point, Md.
Frank Edwin Rouse (16)	Pullman, Wash.
Richard Frederick Lorenz	Chicago, Ill.
Vernon Lake Stintzi (3)	Chester, Iowa
Clarence T. Edwinson (16)	Topeka, Kans.
Theodore S. Proxmire,Jr. (19)	Lake Forest, Ill.
James Carroll Cochran (7)	Riverside, Calif.
Richard P. Schumacher (7)	Los Angeles, Calif.
Arthur Harold Rogers (9)	Raleigh, N.C.
Whitmell Tompkins Rison (1)	Chatham, Va.
Donald Ellis Ridings *	Oakland, Calif.
Leslie Ethridge Martin *	Midlothian, Texas
Preston Patton Pender (9)	Hendersonville, N.C.
Gwen Grover Atkinson (1)	Lufkin, Texas
Harold Micheal Keeffe (12)	Adams, Wis.
Charles Wesseler Bicking (9)	Pittsburgh, Pa.
Harry Willson Markey *	Seattle, Wash.
Henry Clay Godman (9)	Honolulu, T.H.
Howell Galen Crank (4)	Tulsa, Okla.
John Harold Cheatwood (2)	Ruston, La.
Thomas Kerns Hampton *	San Marino, Calif.
Francis B. Gallagher (11)	El Paso, Texas.
Clarence Kinney Longacre (9)	Williamsport, Pa.
Wm. Renolds Stark (6)	Starkville, Miss.

Key:

1. Barksdale Field, La.
2. Bolling Field, D.C.
3. Brooks Field, Texas
4. Chanute Field, Ill.
5. Fort Knox, Ky.
6. Hamilton Field, Calif.
7. Hawaiian Department
8. Kelly Field, Texas
9. Langley Field, Va.
10. Mitchel Field, L.I., New York
11. March Field, Calif.
12. Marshall Field, Fort Riley, Kans.
13. Moffett Field, Calif.
14. Panama Canal Department
15. Philippine Department
16. Randolph Field, Texas
17. Rockwell Air Depot, Calif.
18. Scott Field, Belleville, Ill.
19. Selfridge Field, Mt. Clemens, Mich.

* Unassigned

Of the above listed newly appointed Air Corps Officers, 27 hail from the State of California, 25 from Texas, 13 from Pennsylvania, 11 from Illinois, 6 each from Alabama, New Jersey, South Carolina and Washington, and 5 each from Louisiana, Massachusetts, Michigan and Minnesota. The remaining States are represented by less than five officers.

Los Angeles, Calif., leads the cities represented by the new officers with five, followed by Dallas, Texas; Chicago, Ill.; Salt Lake City, Utah, and Detroit, Mich., with three each. None of the other cities represented are credited with more than two of the officers.

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GAS MODEL CONTEST AT KELLY FIELD

The Southwest Model Plane Association meet, held at Kelly Field, San Antonio, Texas, on September 4th, under the auspices of the San Antonio Gas Model Airplane Club, provided a highly entertaining week-end for some 4,000 spectators, as well as for personnel stationed at Kelly Field.

Seventy participants from the States of Texas, Louisiana and Oklahoma competed in various events, which began at 8:00 a.m. and lasted until 6:00 p.m.

Prizes, awarded by several San Antonio business firms, were presented the winners of contests, performance and ingenuity of design being stressed. The winner of the endurance contest was awarded a round trip by air to New York by Captain Eddie Rickenbacker, President of Eastern Air Lines.

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During the month of August, the Engineering Department of the San Antonio Air Depot, Duncan Field, Texas, overhauled a total of 13 airplanes and 62 engines, and repaired 54 airplanes and 11 engines.

PROMOTION OF AIR CORPS NONCOMMISSIONED OFFICERS

Effective September 17, 1938, forty Air Corps noncommissioned officers received promotions by virtue of the additional grades and ratings provided incident to the recent increase in the authorized strength of the Air Corps. Three First Sergeants and twelve Technical Sergeants were promoted to the grade of Master Sergeant, and 28 Staff Sergeants to the grade of Technical Sergeant. Last on the list of Staff Sergeants who were promoted was Samuel Hymes, stationed at Bolling Field, D.C., who with General Oscar Westover, Chief of the Air Corps, died in the unfortunate airplane accident at Burbank, Calif., on September 21st.

The names of the promoted noncommissioned officers are given below, as follows:

To Master Sergeant, Air Corps

Tech. Sgt. Charles H.McKnight, Mitchel Field, N.Y.
1st Sgt. Benjamin H. Klinger, Barksdale Field, La.
Tech. Sgt. Joseph H. Locher, March Field, Calif.
1st Sgt. Lynn B. Carr, Panama Canal Department
Tech. Sgt. William Kretz, Mitchel Field, N.Y.
1st Sgt. Waldoe Rohlik, Mitchel Field, N.Y.
Tech. Sgt. Forest F. Kelly, Panama Canal Dept.
Tech. Sgt. Leonard L. Bentley, Selfridge Field, Mich.
Tech. Sgt. John McAndrews, March Field, Calif.
Tech. Sgt. Stephen A. Malloy, Panama Canal Department.
Tech. Sgt. James Pearson, Chanute Field, Ill.
Tech. Sgt. Peder Berg, Hawaiian Department.
Tech. Sgt. Earl Hobson, Selfridge Field, Mich.
Tech. Sgt. Clyde L. Walters, Kelly Field, Texas
Tech. Sgt. Peter Ceccato, Hamilton Field, Calif.

Staff Sergeant to Technical Sergeant, A.C.

William H. Jernigan, Langley Field, Va.
Tony Yucius, Langley Field, Va.
James R. Tucker, Randolph Field, Texas
Ray R. Willett, Maxwell Field, Ala.
Robert H. Greene, Barksdale Field, La.
Leonard Williams, Kelly Field, Texas
Roland Antrim, Hamilton Field, Calif.
Frank Hurst, Hawaiian Department
Edwin Paseman, Kelly Field, Texas
Jack Wolfe, Randolph Field, Texas
Lawrence Darcy, March Field, Calif.
David Steine, Barksdale Field, La.
Joseph Kramberg, Barksdale Field, La.
Arthur C. Barker, Langley Field, Va.
William Mehnert, Kelly Field, Texas
Edward F. Skelton, Denver, Colorado
Harry Hicks, March Field, Calif.
Miles B. Sloan, Hawaiian Department
Lloyd Carter, March Field, Calif.
Earl S. Blesh, Selfridge Field, Mich.
Martin Brucher, Philippine Department
Clarence E. Bright, San Antonio Air Depot, Tex.
Elmer H. Fisher, Brooks Field, Texas
John A. Masterson, March Field, Calif.
Charles Gardick, March Field, Calif.
Harold P. Benson, Randolph Field, Texas
Eli B. Nipper, Fort Bragg, N.C.
James E. Dearborn, Panama Canal Department
Chester A. Armstrong, Kelly Field, Texas, to the vacancy in the Air Corps caused by the promotion of Tech. Sgt. Clyde L. Walters.
Edwin J. McClellan, Chanute Field, Ill., to the Technical Sergeant vacancy in the Air Corps caused by the promotion of Tech. Sgt. James Pearson.
Gerald G. Whitaker, Hawaiian Department, to the Technical Sergeant vacancy in the Air Corps caused by the promotion of Tech. Sgt. Peter Berg.
Tony Dambroso, Panama Canal Department, to the Technical Sergeant vacancy in the Air Corps caused by the promotion of Tech. Sgt. Forest F. Kelly.
John A. Marshall, Bolling Field, D.C., to the Technical Sergeant vacancy in the Air Corps caused by the promotion of Tech. Sgt. Charles H. McKnight.
Luther Shelton, Fort Bragg, N.C., to the Technical Sergeant vacancy in the Air Corps caused by the promotion of Tech. Sgt. William Kretz.
Golden R. Davis, Chanute Field, Ill., to the Technical Sergeant vacancy in the Air Corps caused by the promotion of Tech. Sgt. Leonard L. Bentley.
Paul D. Bennett, Scott Field, Ill., to the Technical Sergeant vacancy in the Air Corps caused by the promotion of Tech. Sgt. Earl Hobson.
Courtney K. Mueller, March Field, Calif., to the Technical Sergeant vacancy in the Air Corps caused by the promotion of Tech. Sgt. Joseph H. Locher.
Joseph M. Fredericks, March Field, Calif., to the Technical Sergeant vacancy in the Air Corps caused by the promotion of Tech. Sgt. John McAndrews.
Cecil C. Seguine, Kelly Field, Texas, to the Technical Sergeant vacancy in the Air Corps caused by the promotion of Tech. Sgt. Stephen A. Malloy.

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AIR FORCE DEMONSTRATION AT FORT RILEY, KANSAS

Fort Riley, Kansas, will be the scene of a demonstration on Leavenworth Day, October 20th by the GHQ Air Force. The students at the Command and General Staff School will witness a demonstration by all branches of the Air Force, to include bombing and machine gunning of silhouette targets by Attack Aviation; machine gun fire on a ground target by Pursuit aviation, and bombing of silhouette targets by Bombardment airplanes.

Units to participate in this demonstration are an Attack and a Pursuit Squadron from the Third Wing, GHQ Air Force, and a Bombardment Squadron from the First Wing, GHQ Air Force.

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Major John R. Glascock has been relieved from further assignment and duty at the Air Corps Primary Flying School, Randolph Field, Texas, and assigned to Chanute Field, Rantoul, Ill.

War Department Special Orders relieving Major William W. Welsh from assignment and duty at Maxwell Field, Ala., and assigning him to duty as a student at the Command and General Staff School, Fort Leavenworth, have been revoked.

WING GET-TOGETHER IN PANAMA

On the evening of August 29th, all the officers of the squadrons of France and Albrook Fields, which compose the 19th Wing, gathered at Rio Hato in the Republic of Panama for the annual Wing Dinner ceremony which is to become traditional. The dinner was held in the newly completed mess hall of the gunnery camp there which has been undergoing reconstruction for several months. Officers were quartered in large, airy barracks - also new - with a degree of comfort surprising to those who have spent days and weeks there in tents.

The dinner itself was for a three-fold purpose: to keep alive the "Wing-Ding" as a primary social function; to honor Brigadier General George H. Brett, Commander of the 19th Wing, whose tour of duty in the Panama Canal Department will be completed on September 9th; and to open the new gunnery camp in the finest possible fashion.

The ceremony was opened by Colonel Fred H. Coleman, serving as toastmaster and secretary, who proposed a toast to the Commander-in-Chief of the Army and Navy. An excellent dinner followed, and upon completion of the meal a number of officers, with little warning, were called upon for short speeches.

An interesting talk by General Brett brought the dinner to its conclusion.

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GEN. BRETT'S SON AN ARDENT AIR TRAVELER

On August 17th, Brigadier General George H. Brett, commanding the 19th Wing, Panama Canal Department, accompanied by his young son, Devol, made a hurried trip to Lima, Peru, as guest pilot and technical observer on the Pan-American-Grace Airways. The main purpose of the trip was to examine landing fields and flying facilities over a new route now being established by Pan Agra, which proceeds from Cristobal, Canal Zone, to Bogota, Medillin, and Cali, Colombia, Quito and Guayquil, Ecuador, and on the coastal route into Lima, Peru.

General Brett's observations, according to the News Letter Correspondent, indicate clearly the feasibility of sending small groups of airplanes well into South America; in fact, as a result of his observations, he believes even planes as small as the P-12 type could make this trip in perfect safety from a standpoint of gasing and lodging facilities.

As guest pilot, General Brett was accorded all the privileges of a co-pilot, and he was intensely interested and enthusiastic concerning the operation of this American airline in South America. He returned to Albrook Field on August 20th.

It might be interesting to add that the young son of General Brett, aged 15, has now covered by air Central America from Guatemala City to Panama, and from Panama into South America as far as Lima, Peru, a total distance of approximately 3500 miles.

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BUZZARD DISPUTES PLANE'S RIGHT OF WAY

Because of the number of pilots who have narrowly avoided hitting buzzards or crows, the News Letter Correspondent of the 1st Observation Squadron, Marshall Field, Fort Riley, Kansas, believes that perhaps it will be interesting to them to read of an accidental collision between an airplane and a bird, and the effect on the airplane.

Recently, while a three-ship formation was enroute from Duncan Field, San Antonio, Texas, to Fort Riley, Kansas, and was proceeding peacefully at an altitude of 4200 feet above the ground, plane No. 3, an O-25C, struck an unwary buzzard, surprising both the pilot and the bird. The bird hit the upper left wing, about one and one-half feet from the tip, and remained hanging there. Although the pilot noticed no difference in the flying qualities of the ship, he landed at Belton, Texas, to determine the extent of the damage.

It was found that the front spar had been broken in two places, and Brother Buzzard's leg had been caught in one of the cracks, necessitating amputation to free him, and amputation and replacement of the wing panel. The airplane recovered; the buzzard did not.

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FIRST OBSERVATION SQUADRON IN CAMP

The 1st Observation Squadron, stationed at Marshall Field, Fort Riley, Kansas, spent two weeks - August 28th to September 11th - at Camp McCoy, Wisconsin, participating in maneuvers of the 14th Brigade (Reinforced). Activities during the first week consisted of tow target missions for Infantry rifle and machine gun practice, and observation missions in connection with various problems for the Infantry.

On September 6th and 7th, the Squadron furnished observation for both sides on a "controlled" maneuver. For a two-day "free" maneuver, September 8th and 9th, a flight of three airplanes was furnished each side. Despite a low ceiling, the airplanes were able to fly enough so that both the Blues and the Reds were informed at all times as to the activities of the enemy.

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Special Orders of the War Department, recently issued, relieves Captain John M. McDonnell, Air Corps, from his present assignment and duty at Wright Field, Ohio, and directs him to proceed to his home and await retirement.

1ST OBS. SQUADRON RETURNS FROM MANEUVERS

The 1st Observation Squadron recently returned to Marshall Field, Fort Riley, Kansas, from Camp McCoy, Wis., where the annual maneuvers of the Regular Army troops of the 7th Corps area were held.

The Squadron was handicapped much of the time by low ceiling, fog and rain. During the two-day maneuvers held on September 9th and 10th for Major General Stanley H. Ford, the Corps Area Commander, and his staff, Brigadier General Campbell B. Hodges commanded the Blue Force and Colonel J.C. Pegram, 14th Cavalry, the Red Force.

The 1st Observation Squadron furnished one flight of three airplanes each to both forces. The Red aircraft were commanded by 1st Lieut. Gerry L. Mason, and the Blue aircraft by 1st Lieut. Vernon C. Smith.

The maneuvers of both Red and Blue forces relied heavily on air observation. Radio and drop messages both were used to keep the respective forces informed of the movements of the "enemy."

The maneuvers were remarkably free from umpire restrictions. This gave the commanders of the contending forces a wide choice, and they made free use of it. Wide envelopments, mechanization, horse cavalry and infantry were used to the fullest advantage.

The Air Corps officers participating considered these maneuvers most interesting and instructive. The action of the scout cars in destroying bridges and placing road blocks were a revelation of what is to be expected of these weapons in an open war. The action of tanks against mechanized movements convinced the personnel of the Squadron that they must keep a sharp eye for enemy tanks.

The 14th Cavalry performed in the best traditions of the Service. Their delaying actions were convincing as to their value in open warfare. The opposing flanks were always in danger. The Infantry took cover and froze upon the approach of enemy aircraft. The necessity of no movement and no upturned faces had apparently been impressed upon the personnel of the 3rd and 17th Infantry in an effective manner. The 80th Field Artillery knew how to camouflage their guns, for they were very difficult to find, and some installations were not located.

The Squadron operated with borrowed airplanes, due to the fact that the O-47A's have not reached the production stage such as to enable the Squadron to receive its allotment. Despite this handicap, the work performed was complimented by the Corps Area Commander, General Ford; the Blue Commander, General Hodges; and the Red Commander, Colonel Pegram.

NAVIGATION PROBLEM BY 9TH BOMB. SQUADRON

The 9th Bombardment Squadron, commanded by Major T. V. Foster, conducted a unit navigation and assembly problem over the week end of September 2 - 5, 1938. The flight, consisting of 22 officers and 23 enlisted men, in seven B-18 airplanes, departed from the home station, Hamilton Field, Calif., at five minute intervals, starting at 1900 on September 2nd.

The problem consisted of individual, dead reckoning and celestial navigation missions to Randolph Field, Texas, via Bakersfield, Calif., and El Paso, Texas, with a Squadron assembly scheduled at Fort Clark, Texas, at 0440, on September 3rd.

Excellent weather conditions were encountered on the flight from Hamilton Field to Randolph Field and to a point approximately fifty miles west of Tucson, Arizona. In this area, severe electrical and thunder storms were encountered, accompanied by very heavy rain and unusually severe static conditions. This storm area extended along the course from Tucson, Arizona, to El Paso, Texas, and due to the severe static conditions radio communication in this area was impossible.

Prior to the time of entering this storm area, position reports were given on the hour and half hour by all planes to the Squadron Commander's airplane, which acted as the net control station. In turn, the net control station consolidated all reports and transmitted them to Hamilton Field. Static conditions prevented any radio communication while in the storm area, but shortly after passing El Paso, the Squadron Commander issued orders that the Squadron assembly time would be moved up to 0445. The assembly was accomplished on time and the Squadron proceeded to Randolph Field, landing at 0555.

On the return flight, the Squadron departed from Randolph Field as a unit, at 1300, and proceeded as a unit to Tucson, Arizona. At this point, instructions were issued for all planes to take a five-minute interval and proceed individually to Hamilton Field, via Bakersfield, Calif. Excellent weather conditions prevailed along the entire return flight, and the last plane landed at Hamilton Field at 2255.

Appreciation is expressed for the efficient servicing of the airplanes of the flight while at Randolph Field, and for the excellent service rendered by the Weather Section at that field. The flight was given a forecast which turned out to be accurate along the entire return route.

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AIR AMBULANCE SERVICE IN HAWAIIAN DEPT.

The air transportation of personnel requiring immediate hospitalization is becoming almost a common occurrence in the 5th Bombardment Group, Luke Field, T.H. August 14, 1938, marked the completion of the fifth trip of this character within the space of three months. All trips involved transportation from the island of Hawaii to Oahu, and all but one were appendicitis cases. One case was illustrative of the value of good air-ground communications. Private Donald V. Atkinson, 17th Air Base Squadron, on duty as radio operator at South Cape, Hawaii, an isolated point at the southern tip of the island, was stricken with what he diagnosed as appendicitis. He communicated this fact to the headquarters of the 5th Bombardment Group. Word was received in the late afternoon in time to divert one airplane of a flight returning to Oahu from Hilo.

Private Atkinson was picked up just before darkness set in. He was hurried to Wheeler Field, Schofield Barracks, T.H., where his self-diagnosis was confirmed, and the offending member was removed within forty minutes after his arrival.

Air transportation has been of immeasureable value in cases involving immediate hospitalization of patients, since travel by water requires some twenty hours of sailing over extremely rough water and is available only on schedule.

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COOPERATIVE MISSION WITH COAST ARTILLERY

The 4th Reconnaissance Squadron, Luke Field, T.H., recently completed an interesting and instructive cooperative mission with Battery "A," 15th Coast Artillery. The mission was to service test a means of accurate location of targets for 16" battery, located at Fort Weaver, at extreme ranges. After some 48 hours of preliminary practice, the actual test took place and proved to be quite accurate. The battery used three sighting shots before firing for effect, and on the 4th, 8th and 11th shots nearly direct hits were recorded at a range of 44,000 yards.

It would appear that the feasibility of this means of location of targets in war time is dependent entirely for its success on radio and fairly good weather.

The 4th Reconnaissance Squadron has also been working hard at gunnery, and the hope is expressed that record courses will be fired with good results.

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Organization Day, celebrated by the 23d Bomb. Squadron, Luke Field, T.H., on August 22nd, proved to be a day long to be remembered. Athletic contests of many kinds occupied the time of nearly everyone throughout the day.

FIELD TRAINING BY 23RD BOMBARDMENT SQDN.

The 23rd Bombardment Squadron in the Hawaiian Department moved by air and motor transportation to Bellows Field, Waimanalo, T.H., on the morning of August 15th, for the purpose of conducting the required annual field training.

Other squadrons in the 5th Bombardment Group had previously been in camp, so this organization had an easy time establishing itself. On the morning of August 16th, both the 1000-inch range and the pistol range were in operation by eight o'clock. These ranges were in daily operation for the rest of the period until all personnel required to fire had completed the course.

On August 18th, the airdrome defense crews started an intensive course of instruction in firing at a target towed by a B-12 airplane. After all members of these crews had completed this course, their next phase of instruction consisted of firing at balloon targets.

By August 26th, all phases of ground gunnery had been completed. All officers and men required to fire had fired both the 1000-inch machine gun range and the pistol range, and the airdrome defense crews had been given an intensive course in the setting up, operation and maintenance of the antiaircraft machine gun, in addition to firing at towed targets and balloons.

The Squadron returned to Luke and Hickam Fields on the morning of August 27th, having completed its required ground gunnery. In Addition, the varied tasks assigned each man had proved a welcome diversion from routine duties. That late afternoon swimming was indulged in by nearly all men was evidenced by numerous cases of sunburn. All in all, the period of annual field training was a complete success for the 23rd Bombardment Squadron.

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GENERAL BRETT LEAVES PANAMA CANAL DEPT.

On September 7th, the 19th Wing honored its departing Commander, Brigadier General George H. Brett, Air Corps, with a Wing Review at Albrook Field. Following a ground inspection of airplanes and crews, the Wing passed twice over the field in column of squadrons. Music for the occasion was furnished by a band from the neighboring Engineer post of Corozal.

General Brett sailed on September 9th aboard the Transport REPUBLIC for San Francisco, and will be stationed in the Office of the Chief of the Air Corps, Washington, D.C.

"The 19th Wing," says the News Letter Correspondent, "regrets losing a Commander who has accomplished so much for the good of the Air Corps in the Canal Zone."

THE NEW CLASS AT RANDOLPH FIELD

A total of 114 newly commissioned officers, graduates of the 1938 class at West Point, N.Y., were scheduled to report the latter part of September to the Commanding Officer at Randolph Field, Texas, ready to pursue the course of flying training at the Air Corps' West Point of the Air. Forty-one States, as well as the District of Columbia and the Panama Canal Zone, are represented by these young second lieutenants, who will start their actual course of instruction about October 15, 1938.

Texas, usually well up on the list in point of numbers, is represented in the new class of student officers by only two - 2nd Lieuts. Norman L. Tittle, of Wichita Falls, and Hugh D. Wallace, of Fort Worth. The State of New York leads numerically with a total of twelve potential aviators, with Illinois in second place with seven, and Pennsylvania in third position with six officers.

An imposing array of sports talent is in the new student officer class, six former captains of athletic teams at the Military Academy having already put in their appearance. Lieut. James H. Isbell, 200-pound tackle and captain of last year's football team, reported early, along with Lieut. Harris E. Rogner, former basketball captain; Lieut. Charles W. Sherburne, captain of lacrosse; Lieut. B.C. Harrison, captain of boxing; Lieut. William H. Blanchard, captain of hockey, and Lieut. G.C. Russell, captain of tennis.

The Air Corps Training Center also has its share of Honor Graduates from the June class. Of the 13 honor men, four of them passed the Air Corps physical examination and are now ready to take the additional training to qualify them as pilots in the Air Corps.

In addition to the 114 newly commissioned officers assigned to Randolph Field for aviation training, there will be four officers from various branches of the service who will take the course, namely, Captain James B. Colson, Infantry; 1st Lieut. R.A. Risden, Infantry; 2nd Lieuts. Nicholas T. Perkins, Coast Artillery Corps, and Robert T. Crowder, Infantry.

Finally, approximately 235 Flying Cadets will report to Randolph Field about October 10th, making the total number in the class to start their aviation career about 354.

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PROGRESS OF TRAINING AT RANDOLPH FIELD

The air in the vicinity of the Primary Stage at Randolph Field is virtually alive as the present class of cadets polish up their acrobatics in PT-3's, PT-11's and PT-13's. With only half of the class flying in the mornings and the other half in the afternoons, more air space is available for the aerial gyrations. Meanwhile, the class on the Basic stage is spending most of its time on cross-country work, both day and night; instrument flying, and formation, preparatory to departing for Kelly Field and the Advanced Flying School on October 7th.

"Although the final figures are not as yet available, it is believed," says the News Letter Correspondent, "that both Primary and Basic stages will graduate about the same percentages as prevalent in recent classes."

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NEW PURSUIT PLANE ARRIVES AT BARKSDALE

Diving out of the afternoon sky on September 9th at terrific speed came the first Curtiss P-36 to be delivered to Barksdale Field, Shreveport, La. Ferried from the factory at Buffalo, N.Y., by Lieut. D.R. Hutchinson, the new Pursuit plane was given the "once over" at Wright Field, Dayton, Ohio, on September 7th and 8th before its flight to Barksdale Field the following day. It will be only a short time until the 20th Pursuit Group will soon be flying on silver wings instead of the old faithful blue and yellow.

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GUNNERY OPERATIONS FOR 74TH ATTACK SQDN.

The 74th Attack Squadron, which is based at Albrook Field, Panama Canal Zone, moved to the 19th Wing's newly rebuilt gunnery camp at Rio Hato, Republic of Panama, on September 10th, for two weeks of gunnery and tactical operations. The new buildings should add a great deal to the comfort of officers and men on duty there during the maneuvers.

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PHILIPPINE AIRMEN SEARCH FOR CLIPPER

When the startling news was received that the "Hawaii Clipper" was long past due at Cavite the evening of July 28th, the Commanding General of the Philippine Department issued orders for the Air Corps to "stand by" to render whatever assistance may be required in cooperation with commercial and Navy forces that may be called into action to assist in the search, if Pan American Airways requested such assistance.

On the following day, the Commanding Officer of the Fourth Composite Group, Nichols Field, P.I., received orders to participate in the search that had been requested by P.A.A. officials. The Commanding Officer of the 28th Bombardment Squadron at Clark Field immediately dispatched six Bombers. The Group operations officer at Nichols Field dispatch-

ed the two Amphibians.

The search was carried out for four days in cooperation with the Navy's 13 surface craft, two Navy Amphibians, and the U.S. Transport MEIGS, which was the first craft to approach the scene from which the last radio report of position was sent by the Clipper, approximately 400 miles east of the Philippines. With the discovery by the MEIGS of the oil slick, the search was conducted around that area for two days, after which it was extended southward and eastward.

After the fourth day, the search was regretfully terminated by the Army Air Corps, no trace having been found of the Clipper.

Altogether, planes from the 4th Composite Group covered approximately 127,000 square miles without mishap. Good weather prevailed during the entire search.

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COL. WOOTEN COMPLETES LONG AIR JOURNEY

At 4:10 p.m. on the afternoon of August 20th, Lieut. Colonel Ralph H. Wooten, Air Corps, landed at Albrook Field, enroute to Santiago, Chile, to take over the duties of Military Attache to that country. Flying an A-17 Attack plane, and accompanied by Staff Sergeant John J. Licheay as crew chief, Colonel Wooten departed from Brownsville, Texas, on the morning of August 19th and remained overnight in Guatemala City, Guatemala.

At 8:08 on the morning of the 20th, the A-17 was out for Albrook Field, Panama Canal Zone. Colonel Wooten was reported over San Salvador at 9:00 a.m.; in at San Jose, Costa Rica, for gas at 12:10 p.m. At 1:04 p.m., he took off for Albrook Field, where he landed at 4:10 p.m.

Intending to remain only two days in the Canal Zone, Colonel Wooten was delayed there due to the temporary illness of Sergeant Licheay, who received medical treatment at Gorgas Hospital.

Before the post was well awake on the morning of August 26th, Colonel Wooten had taken off for points south and was making up for lost time. At 10:48 a.m., he landed at Cali, Colombia, and at 11:30 a.m., he took off for Guayaquil, Ecuador, where he landed at 2:55 p.m. Half an hour later he was in the air again, headed for Talara, Peru, which he reached at 5:00 p.m., and where he spent the night. On the following day the only report received at Albrook Field was when the final stop of the day was made at Arica. At 10:10 a.m., August 28th, the plane reached Antofogastia, Chile, and at 2:45 p.m., Colonel Wooten landed in Santiago. More detailed accounts of the long flight were not available. Colonel Wooten's personal narrative of the trip would be of great interest.

AUTOMATIC FUEL SYSTEM

By the Wright Field Correspondent

An automatic fuel system, developed by the Air Corps Materiel Division, Wright Field, Dayton, Ohio, consists of a device for turning the fuel cock to another tank when the supply in one tank has been exhausted. The construction of the device is such that when the fuel pressure drops below a set value, the fuel cock is automatically turned in a clockwise direction to the next tank. In case the next tank is empty, the device continues to turn the fuel cock until a tank containing fuel is contacted, at which time the fuel pressure is built up to that required and the automatic device cuts out. The device does not interfere with manual operation.

It is believed that the automatic fuel system will help to eliminate those numerous accidents which have resulted from running out of gas while taking off, landing, or flying low.

The Materiel Division is desirous of obtaining the comments of the Service in regard to the desirability of further development, with a view towards standardization on certain types of airplanes.

The system has been incorporated in an A-17 airplane at Wright Field, and this plane was scheduled to be flown to Langley and Barksdale Fields during the last week in September for the purpose of enabling the personnel at those stations to become acquainted with and comment upon the system.

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ACTIVITIES OF THE FIRST PURSUIT GROUP

Selfridge Field, Mt. Clemens, Mich., the home of the First Pursuit Group, has been a hive of activity the past summer, and at this late date the future holds no prospect of any relaxation.

With the completion of deliveries of the P-35 Pursuit planes and a minimum of mechanical difficulties, the Group is again ready to take its place in the Air Force.

The 27th Pursuit Squadron, under Major Willis R. Taylor, had the honor of representing Selfridge Field at the National Air Races, and has now returned to the nest to prepare for maneuvers in October.

The 17th Pursuit Squadron departed for Camp Skeel, Oscoda, Mich., for gunnery training.

The 94th Pursuit Squadron seems to be the orphan child. Practically all its officers have been attached to the 17th and 27th to bring those squadrons up to strength.

A great deal of training has been carried on in formation at high altitudes, familiarizing the personnel to the unpleasant conditions involved near the moon.

AIR CORPS NEWS LETTER



MAJOR GENERAL HENRY H. ARNOLD,
CHIEF OF THE AIR CORPS.

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The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard and others connected with aviation.

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KELLY FIELD GRADUATES LARGEST CLASS IN HISTORY

Graduation Exercises for Class 38-C were held at the Air Corps Advanced Flying School, Kelly Field, Texas, on Wednesday, October 5, 1938. The class consisted of 64 Regular Army officers and 80 Flying Cadets, and was the largest graduating class in the history of the Training Center.

The highlight of all the events of the day was the huge Aerial Review at 9:30 a.m., in which 135 planes of all types were flown by 15 Flying Instructors and 144 students. This was the largest graduation aerial review ever flown at Kelly Field and was witnessed by an estimated 5,000 spectators.

A total of 114 student officers and 166 Flying Cadets from the Primary and Basic stages at the Primary Flying School, Randolph Field, Texas, formed a guard of honor for the reviewing party, which consisted of:

Major General F.W. Rowell, U.S.A.,Commanding General, 2nd Div. and Fort Sam Houston;

Brigadier General C.F. Humphrey, Jr., U.S.A., Commanding General, 3rd Field Artillery Brigade;

Brigadier General Barton K. Yount, Air Corps, Commanding General of the Air Corps Training Center;

Colonel Frank D. Lackland, Air Corps, Commandant of the Air Corps Advanced Flying School;

Colonel Eugene A. Lohman, Air Corps, Assistant Commandant of the Air Corps Advanced Flying School;

Lieut. Colonel John B. Brooks, Air Corps, Commandant of the Air Corps Primary Flying School;

Lieut. Colonel Selby H. Frank, Ordnance Dept., Commanding Officer, San Antonio Arsenal;

Lieut. Colonel Edwin B. Lyon, Air Corps, Assistant Commandant of the Air Corps Primary Flying School;

Lieut. Colonel Coleridge L. Beaven, Medical Corps, Commandant, School of Aviation Medicine;

Lieut. Colonel J.M. Thompson, Q.M.C., Commanding Officer, Camp Normoyle, Tex.;

Lieut. Colonel H.J.F. Miller, Air Corps, Commanding Officer, Duncan Field, Texas;

Major Douglas Johnston, Air Corps, Commanding Officer, Brooks Field, Texas;

Major John R. Morgan, Air Corps, Director of Flying Training of the Air Corps Training Center.

Following the review, exercises were held at the Post Theater at 10:45 a.m., where the class was addressed by Brig. General Delos C. Emmons, Air Corps,Commander of the 1st Wing, GHQ Air Force, who presented each member with his graduation diploma. All graduates received their wings and the official aeronautical rating of "Airplane Pilot." Hundreds of relatives, friends, and interested persons attended the various exercises.

Among the student officers of the class was Lieut. Charles B. Westover, son of the late Major General Oscar Westover, who at the time of his unfortunate crash was the Chief of the Air Corps. General Westover had been scheduled to deliver the graduation address.

Among the members of each class are some Flying Cadets who form a staff to assist the Commandant of Flying Cadets. These men are picked for their military ability, neatness, their ability in handling men, and their personality, and are given the titles of Cadet Captains and Lieutenants. This honor is coveted by all the Cadets, as it means that the ones selected "have what it takes." In Class 38-C, the Cadet Captain was Robert V. DeShazo, from Leeds, Alabama. The Cadet Lieutenants were William E. McEntire, of Fort Forth Texas, and John N. Carlton, of St. Peter, Minnesota.

The graduation address delivered by General Emmons was as follows:

"First, let me state that I consider it a great honor to be invited to address you at this time, and am grateful for the opportunity.

Next, let me congratulate the class and their instructors for the well executed review just completed.

With the permission of the guests and the instructors, I will direct my remarks to the graduating class. You have just completed a very difficult and thorough course of instruction, and have proven by the acid test that you are worthy of a commission in the Army Air Corps, either as a regular or as a reserve officer. You have made an excellent start on a most interesting and exciting career. We who currently command

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tactical units and who receive most of you upon your graduation, find the product of this school to be to our liking because you have had sound flying and disciplinary instruction; because you are in excellent physical condition and do not dissipate; because you are as a rule enthusiastic, studious and anxious to learn; because you obey all orders willingly and cheerfully; because you are self reliant but modest in your accomplishments; and because you belong to our close brotherhood of Air Corps officers and are loyal to it.

You will find upon arrival at your station a splendid lot of companions and associates who will welcome and assist you. You will learn that your commanders all along the line will take a keen interest in your work and welfare. You will discover a fine lot of enlisted men with very high morale. You will join tactical units which, though understrength, are effective and have an enviable Esprit de Corps. You can count on trained and experienced leadership. You will be busy, but you will enjoy the work because it will be instructive and interesting.

In single-engine units, you will probably be assigned - after a short period of instruction - to the important position of airplane commander. In multi-engine units you will - after a considerable amount of individual instruction - be assigned as a regular member of an organized combat crew as co-pilot, navigator, or bombardier, or on a unit staff. After you acquire the necessary service and pilot hours you will, in multi-engine units become the chief pilot and airplane commander. You will secure the required number of pilot hours by acting as co-pilot in Bombers or in the BC-1, a number of which have been assigned to Bombardment and Reconnaissance units.

It may interest you to know that a number of recent graduates of the Training Center, including some of you, have been assigned to multi-engine units without previous service with a single-engine unit. I am happy to report that the great majority of those that the First Wing received of the last class from the Training Center and assigned direct to Bombardment and Reconnaissance units, are doing very well and appear to be contented with their assignments. I would also like to report that practically all of the younger officers who have been transferred from single-engine units to Bombardment and Reconnaissance squadrons in order to build them up, are delighted with their new assignments and opportunities.

When you arrive at your new station, you will find a lot of new combat equipment. Some of it will be fast, much of it will be heavy, and all of it will be complicated. I just want to say that you need have no worries about handling this equipment. You have the technique of flying and the fundamentals. You will be given ample instruction and assigned no positions or missions that you cannot handle confidently and safely.

On an occasion like this it seems to be customary for the speaker to offer some advice to the graduating class. I don't want to be an exception and therefore ask you to consider several matters that may prove to be useful.

The first subject is debts. These do more to endanger a young officer's career than anything I know of, and far too many young officers incur more obligations than they can handle. Eventually, overdue bills and notes find their way to official channels with consequent embarrassment to the officer and to the service. I advise you, especially if married, to buy only what you can afford and not to attempt to buy all you think you need at once. Please understand that young people are not expected to have much in the way of furniture, finery, or luxuries, and I can assure you that we - including your contemporaries - respect the man who is free from the worries of debt.

In connection with furniture, let me call your attention to the quarters situation. At many of our stations, including both March and Hamilton Fields, there is a great shortage of married officers' quarters. The chances are that many of you will have to live in adjoining towns on commutation. Oft-times there are more furnished houses available than unfurnished ones, and the difference in rental is surprisingly small. May I suggest, therefore, that you delay the purchase of furniture, etc., until you arrive at your station and find out what your situation will be.

My last piece of advice is to continue your professional and non-professional studies. To be realistic about it, you are in direct competition for future preferments with the finest group of young men in this nation. You simply cannot afford to fall behind the procession, and you will unless you devote a very substantial amount of your time to furthering and broadening your education.

In conclusion, let me heartily congratulate you on your success at this institution. Most of you are going almost immediately to the GHQ Air Force, and we need and welcome you. Let me wish all of you every possible success."

Of the 144 students who graduated from the Training Center on October 5, 1938, 16 officers and 13 Flying Cadets specialized in Attack Aviation; 6 officers and 14 Flying Cadets in Observation Aviation; 18 officers and 39 Flying Cadets in Pursuit Aviation, and 24 officers and

14 Flying Cadets in Bombardment Aviation. The roster of the graduating class is as follows:

REGULAR ARMY OFFICERS

Observation Aviation

Captains

Tarro, John Albert, A.C.	Ill.

1st Lts.

Lee, Robert Merrill, Cav.	Maine
Mosby, John Trueheart, Inf.	Virginia

2nd Lts.

Mauldin, Whiteford Carlisle, Cav.	Lockesburg, Ark.
Powell, Thomas E., Inf.	San Francisco, Calif.
Stratton, Wilbur H., Cav.	Seattle, Wash.

Pursuit Aviation

1st Lts.

Bondley, Charles J., Jr., CAC	Ohio

2nd Lts.

Cain, Wm. Joseph, Jr., Inf.	Bayonne, N.J.
Clingerman, Wm. Ray, Jr., CE	Terre Haute, Ind.
Ellis, Gale Eugene, SC	Beaver Falls, Pa.
Eriksen, John Gordon, FA	Milwaukee, Wis.
Fellows, Richard Wm., Cav.	Algoma, Wis.
Hammond, Harry Edwin, FA	Pine Bluff, Ark.
Holdiman, Thomas A., QMC	Marshalltown, Iowa
Holloway, Bruce Keener, Cav.	Knoxville, Tenn.
Klocko, Richard P., Eng.	Dunkirk, N.Y.
Magoffin, Morton D., Inf.	Deerwood, Minn.
McElroy, Ivan Wilson	Austin, Texas
Robbins, Charles Louis, CAC	Elkhart, Ind.
Sprague, Charles A., Cav.	Bridgeport, Conn.
Stark, Charles Wm., Jr., Inf.	Trenton, N.J.
Stevenson, John D., CE	Tie Siding, Wyo.
Ulricson, John R., Cav.	Milford, N.H.
Wright, Harold Bell, CE	Calvin, Okla.

Bombardment Aviation

2nd Lts.

Agee, Sam Wilkerson, Jr., FA	Silver City, N.M.
Batjer, John F., FA	Houston, Texas
Caldwell, Jack E., Inf.	Searcy, Ark.
Clark, Alan Doane, CAC	Washington, D.C.
Conway, Walter Clem, CAC	Abilene, Texas
Diehl, Conrad H., Jr. FA	Washington, D.C.
Donohew, Jack N., CE	Slater, Mo.
Dorney, Harvey C., Cav.	Olney, Ill.
Dunlop, Woodrow Wm., Inf.	Manville, R.I.
Gray, Marshall R., Inf.	Newton Center, Mass.
Greeley, Horace, Inf.	Jackson Heights, N.Y.
Gurney, Samuel C., Jr., Cav.	Ridgewood, N.J.
Hackford, Richard H., CAC	Gardenville, N.Y.
Holcomb, George L., CE	Kemp, Texas
Horrigan, Wm. Kienle, FA	Fort Thomas, Ky.
McDonald, William E., Cav.	Urich, Mo.
Ohman, Nils Olof, CE	East Dedham, Mass.
Preston, Maurice A., Cav.	Tulare, Calif.
Rutherford, Alvord, CAC	Washington, D.C.
Sanborn, Kenneth O., Inf.	Potter Place, N.H.
Spilman, Lawrence A., Cav.	Ottumwa, Iowa
Taylor, Robert, erd., CAC	Baltimore, Md.
Wade, Kenneth Sayre, SC	San Diego, Calif.
Westover, Charles B., FA	Washington, D.C.

Attack Aviation

2nd Lts.

Andrews, Frank Wm., Inf.	Glendale, Calif.
Barden, Richard R., SC	Pen Yan, N.Y.
Brummel, Donald B., QMC	Chicago, Ill.
Denson, Render D., Inf.	Birmingham, Ala.
Durham, Jasper N., Inf.	Salem, Mo.
Eckman, Walter, CE	Houston, Texas
Green, Malcolm, Jr., Inf.	Sausalito, Calif.
Herman, Robert H., CAC	Middletown, Ohio
Hipps, William G., Cav.	Curwensville, Pa.
Leland, Gordon C., Inf.	San Jose, Calif.
Low, Curtis Raymond, CAC	Needham Hts., Mass.
Marr, Harold Everett, Jr., FA	Searport, Me.
Miller, Joseph A., Jr., Inf.	Brevard, N.C.
Pell, Floyd Joaquin, Cav.	Ogden, Utah
Posey, James Theo, Inf.	Henderson, Ky.
van Leuven, Harry F., FA	Minneapolis, Minn.

FLYING CADETS

Attack Aviation

Arnold, Walter Erath, Jr.[1]	El Paso, Texas
Bylander, Richard Murray[2]	Little Rock, Ark.
Cole, Perry Sherman[2a]	Washington, Ind.
DeShazo, Robert Vernon[4]	Leeds, Ala.
Flack, Rudolph Emil	West Los Angeles, Calif.
Howery, Allen Moore	Russellville, Tenn.
Hubbard, Ronald Dean	Warren, Ohio
Madre, John Douglas	Memphis, Tenn.
Moffett, Christopher Otho	Fordyce, Ark.
Robinson, Gerald Graham	Los Angeles, Calif.
Stuart, Robert Hartwell	San Jose, Calif.
Welborn, Kenneth Moses	Ky.
Young, Sig Rodgers	Tucson, Ariz.

Bombardment Aviation

Adams, Jack, Jr.	Walters, Okla.
Bohnaker, William John	Platteville, Wis.
Carlton, John Noble	St. Peter, Minn.
Courtney, Harold Douglas	Fullerton, Calif.
Eisenhart, Charles Marion	Culbertson, Neb.
Green, Edwin Smith	Imperial, Calif.
Lindsay, James Robert	Santa Paula, Calif.
Manierre, Ernest Roderic	Hartford, Conn.
McGinity, Frank Joseph[3]	Denville, N.J.
Nisbett, Charles Albert	East Hartford, Conn.
Proctor, John Peebles	Athens, Ga.
Sharp, Frank Douglas	Salem, Ore.
Sullivan, John Lynn	Scranton, Pa.
Wade, Horace Milton	Magnolia, Ark.

Observation Aviation

Bacon, Thomas Philip[3]	Bessemer, Ala.
Casey, Edward Richard[2]	Boston, Mass.
Eidson, Harry Taylor	Indianapolis, Ind.
Fitzgerald, Maurice Joseph	Fort Smith, Ark.
Gilbert, Huntington Kerr	Dorset, Vt.
Hamilton, McHenry, Jr.	Alexandria, La.
Heinlein, Oscar Allen	Sacramento, Calif.
Hopper, Rowland Wells	Fresno, Calif.
Kime, Duane Louis	Milwaukee, Wis.
Knorre, Frederick James, Jr.	San Francisco, Calif.
Lawrence, Reesor Mott	Oakland, Calif.
Longino, Houston Walker, Jr.	Silver Creek, Miss.
McGowan, Leland Stanford	Alhambra, Calif.
Nothstein, Charles Lewis	Norman, Okla.

Pursuit Aviation

Baxter, Forrest Houston	Hazel, S.D.
Bullis, Harry J.	Portland, Mich.
Cleveland, William H.	San Francisco, Calif.
Feeney, Francis Robert	Boston, Mass.
Fountain, Willard Asa	Hialeah, Fla.
Greasley, Philip Henry	West Hartford, Conn.
Healy, John Patrick	North Bergen, N.J.
Holcombe, Elton Earl	Atlanta, Texas
Hubbard, Glenn Elwood	Durand, Wis.
Kluever, Arnold F.A.[3a]	Atlantic, Iowa
Knox, John Max	Nashville, Tenn.
Mason, Joe Lennard	Columbus, Ohio
McEntire, William Elza[2]	Fort Worth, Texas

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McKechnie, Robert Ross	Cleveland, Ohio
O'Brien, Frank Edwin[5]	Concord, N.H.
Osborn, John William	Lincoln, Neb.
Pinkston, Gladwyn Earl	Phillipsburg, N.J.
Prichard, William Jesse	Inverness, Miss.
Quinn, Robert Sidney	Rochester, N.Y.
Roberts, John Alva, Jr.	Beebe, Ark.
Rockey, Guy Hamilton	Athens, Ohio
Salzarulo, Raymond Paul	Richmond, Ind.
Schwartz, Paul	Tampa, Fla.
Shilling, Eriksen Emerson	Washington, D.C.
Slayden, Van Hatton[2]	Fort Sam Houston, Texas
Sparks, Walter William, Jr.	Inverness, Miss.
Starkey, James Fred	Greeley, Colo.
Stefonowicz, LeRoy Len	Wildrose, N.D.
Sullivan, Wm. Alexander, Jr.[2]	Aspinwall, Pa.
Taylor, Ozburn Early	Nashville, Tenn.
Thurman, Wayne Earl[3]	Lincoln, Neb.
Toliver, Raymond Frederick	Fort Collins, Colo.
Tuell, Joseph Charles	Bisbee, Ariz.
Walker, Arthur James	New Orleans, La.
Ward, Brewster	Buffalo, N.Y.
Westbrook, Sam Wilkins[3a]	Faunsdale, Ala.
Wintermute, Ira Francis	Salem, Ore.
Wiper, Samuel Bey	Sheldon, N.D.
Yurkanis, Paul John	South Boston, Mass.

Note: 1 - 2nd Lieut., Cavalry Reserve
2 - 2nd Lieut., Infantry Reserve
3 - 2nd Lieut., Field Artillery Reserve
3a- 1st Lieut. Field Artillery Reserve
4 - 2nd Lieut. Engineer Reserve
5 - 2nd Lieut. Coast Artillery Reserve

Special Orders of the War Department assigned the commissioned graduates of the Air Corps Training Center to the following Air Corps stations for duty, as follows:

To Barksdale Field, La.: Lieuts. Hipps, McElroy, Sprague, van Leuven and Wright.

To Brooks Field, Texas: Captain John A. Tarro.

To Fort Bragg, N.C.: Lieut. Mosby.

To Fort Knox, Ky.: Lieut. Lee.

To Fort Lewis, Wash.: Lieut. Stratton.

To Hamilton Field, Calif.: Lieuts. Agee, Wade, Dunlop, Holcomb, Preston, Taylor.

To Hawaiian Department: Lieuts. Barden, Cain, Denson, Diehl, Durham, Eckman, Gray, Hackford, Hammond, Holdiman, Holloway, Ohman, Posey, Robbins and Rutherford.

To Langley Field, Va.: Lieuts. Bondley, Clark, Dorney, Ellis, Klocko, Stevenson.

To March Field, Calif.: Lieuts. Brummel, Donohew, Green, Herman, Leland, Low, McDonald, Pell and Westover.

To Mitchel Field, N.Y.: Lieuts. Batjer, Greeley, Gurney, Sanborn, Spilman and Mauldin.

To Moffett Field, Calif.: Lieut. Powell.

To the Philippine Department: Lieuts. Caldwell, Fellows and Horrigan.

To Selfridge Field, Mich.: Lieuts. Clingerman, Eriksen, Magoffin, Stark and Ulricson.

With respect to the assignment to extended active duty at Air Corps station of the Flying Cadet graduates, it is expected that War Department orders will shortly be issued covering such assignments.

RETIREMENT OF MASTER SERGEANT HIXSON

Master Sergeant William A. Hixson, Air Corps, was placed on the retired list, September 30, 1938, after three decades of service, and on September 28th a banquet was tendered him by the personnel of the Administrative Section, Base Headquarters and 1st Air Base Squadron, Langley Field, Va.

Colonel Lawrence Churchill, Base Executive Officer, complimented Sergeant Hixson on his long and efficient service, and stated that the best wishes of the entire personnel would accompany him into his well earned retirement. Major Paul J. Mathis, Commanding Officer of the Administrative Section; 2nd Lieut. Paul Dane, former Adjutant, and 2nd Lieut. William D. Lee, Jr., present Adjutant of the Section, also lauded Sergeant Hixson's services. The members of the organization with which he was connected presented Sergeant Hixson with a high-powered automatic rifle.

Born at Dunlap, Fetachie County, Tenn., Sergeant Hixson enlisted in the U.S. Army at the age of 18, joining the 118th Company, Coast Artillery Corps, at Fortress Monroe, Va. He remained with this unit until June 15, 1914, when he reenlisted for the Sixth Company, Coast Artillery, in the Philippines. He remained with the Coast Artillery until 1922, when he joined the Air Corps at Kelly Field, Texas. When the Fourth Air Park stationed there was disbanded, Sergeant Hixson was transferred in grade to the newly organized 59th Service Squadron, located at Langley Field, Va., where he has remained for twelve years.

The Sergeant, Mrs. Hixson and their son, William A., Jr., will reside at 704 Libby Avenue. Richmond, Va.

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MANY PROMOTIONS AMONG ENLISTED MEN AT RANDOLPH

As the result of the additional increase in personnel allotted to the Army Air Corps, 15 Sergeants, stationed at Randolph Field, Texas, were promoted to the grade of Staff Sergeant; 27 Corporals were elevated to the grade of Sergeant, and 39 Privates and Privates 1st Class were made Corporals. At the same time, Randolph Field was given an increase of 120 men, and the News Letter Correspondent expresses the hope that these will be recruited within the 8th Corps Area.

The list of new Staff Sergeants include --

Frank Lewis, Eugene J. Baldauf and Ramon C. Bradford, Headquarters and Headquarters Squadron;

Albert Lessard, Alonzo Jacobs, Jr., and Porter W. Fergerson, 46th School Squadron;

Herman G. Mize, Howard R. Bilby and Frank A. Bulgawicz, 47th School Squadron;

James S. Battle, Vance Z. Cornelius, 52nd School Squadron;

Roy L. Morris and Ladislaus J. Laiewski, 53rd School Squadron;

Henry Fennel and Jack S. Walters, 11th Air Base Squadron.

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19TH BOMBARDMENT GROUP WINS DAEDALIAN AND COLOMBIAN TROPHIES
By the March Field Correspondent

In an impressive ceremony on the morning of September 21st, before troops of the 19th Bombardment Group, drawn up on the parade ground at March Field, Riverside, Calif., the late Major General Oscar Westover and Major General Frank M. Andrews presented the Daedalian and Colombian Trophies to Lieut. Colonel Harvey S. Burwell, Commanding Officer of the Group. Both Trophies, won by the 19th Group for the splendid record of 10,942 hours of flying during which only one minor accident occurred, were presented as a blazing morning sun beat down on the assembled troops.

The initial presentation of the new Daedalian Trophy, given to the Air Corps by the Order of the Daedalians, an organization of Air Corps officers who saw active duty as pilots during the World War, was made by Major General Westover only a few hours before his tragic death. Standing before the tall, gleaming Trophy, General Westover spoke feelingly of his pride in the achievement of the 19th Group. He said: "Records show that the 19th Bombardment Group flew more hours per airplane than any other organization in the GHQ Air Force or in the entire Air Corps."

General Andrews, in presenting the Colombian Trophy, won in 1936 and 1937 by the 3rd Attack Group of Barksdale Field, La., stated that exceptional ability of officers and men was necessary in being able to acquire this Trophy, in view of the fact that during the year the Group had to fly and maintain a new type of airplane. The Trophy was originally given to the Commanding General of the GHQ Air Force for presentation, as he saw fit, to any tactical unit of the GHQ Air Force, by the Colombian Government.

Lieut. Colonel Burwell, himself a Daedalian, received both trophies for his men and himself, and stated that credit should go first to the enlisted mechanics for their expert maintenance work and, second, to airplane commanders and pilots. Colonel Burwell's leadership and strict supervision of the 19th Bombardment Group was no doubt one of the main contributing factors in the fine record made by that organization during the past year.

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ARKANSAS NATIONAL GUARD AIRMEN COMPLETE FIELD TRAINING
By Lieut. Chester A. Cockrill, 154th Sqdn.

The 154th Observation Squadron, Arkansas National Guard, Little Rock, Ark., returned from Eglin Field, Valparaiso, Fla., on September 3rd, after completing one of the most successful field training periods in its history. During this ten-day period, practically all the pilots and observers qualified in aerial gunnery. Lieut. William D. Hopson, pilot, was high scorer on front gunnery, and Lieut. Lindley H. Clawson, observer, on rear gunnery. Over thirty thousand rounds of ammunition were expended which, we understand, is more ammunition than any peacetime unit has expended since the World War. Much of the success of aerial gunnery practice is due to the wholehearted endeavors of Lieut. Francis M. Scates, Armament Officer; Lieut. Gilbert Leigh, Jr., Assistant Armament Officer, and the entire Armament Section which worked day and night.

The total flying time during the encampment was 363 hours, 35 minutes. or 27 hours and 58 minutes per pilot. The total observer time was 64 hours and 20 minutes, or 8 hours and 2 minutes per observer. Captain Robert H. Baker, Operations Officer, and Lieut. John D. Howe, Engineering Officer, plus perfect flying weather, are largely responsible for so much flying time. Also, the desire to get away from the hordes of Florida "biting" flies had a lot to do with it. "Florida swagger sticks" (fly swatters) were standard equipment among all officers.

Chief credit for the success of our 1938 encampment is due our Commanding Officer, Major Adrian Williamson, in coordinating the work of the various sections and upholding the discipline and efficiency of the entire Squadron.

During the encampment all pilots were given an opportunity to fly the new North American O-47A Observation plane, and they handled it perfectly. Our Instructor, Major Robert D. Knapp, has just returned from the North American factory with one of these planes, and the Squadron is very proud of it. All pilots are required to read all technical orders pertaining to the O-47A, get in ten hours of airdrome flying, and make at least twenty landings before being allowed to make cross-country trips in it. Lieut. Howe, our Engineering Officer, spent several days in the North American factory, and he and Major Knapp gave a very interesting lecture at the officers' meeting on Wednesday evening, September 28th, on the operating characteristics of our new airplane.

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The News Letter would like to hear from other National Guard organizations.

CONSIDERABLE TIME BY FLYING INSTRUCTORS

One thousand and ninety-four times around the earth at the equator, at 100 miles per hour - 27,369,000 miles - 31 years of continuous flying - 273,697 hours. These are the calculations arrived at when a recent study was made of the total flying time of a representative group of officers at the Air Corps Primary Flying School at Randolph Field, Texas. Only those with more than 2,000 hours' time were considered in the tabulation, which showed that 95 pilots had reached this figure.

Dean of them all is Captain B.A. "Bunk" Bridget, with a total time of 6113 hours, or approximately 24 times around the world - again figuring at only 100 miles per hour. Close on Captain Bridget's heels comes Major J.R. Glascock, with 5836 hours, followed by Captain J.W. Andrew with 5623 hours; Major S.T. Smith with 5053 hours; and, finally, Major John R. Morgan closing the select "over 5000 hour" group with a "bare" 5022 hours.

Of the 95 pilots amassing the figures set forth in the first paragraph, above, a majority of them are either Stage Commanders, Assistant Stage Commanders, Flight Commanders, Flying Instructors, or directly connected with the Flying Department of the Primary Flying School, thus giving an insight into the experience and background of the flying personnel of the school.

To look at the current picture regarding flying time, during the month of August, 1938, personnel of the Primary Flying School, including instructors and students, flew a total of 16,504 airplane hours, or a distance equivalent to more than 66 times around the earth, still using 100 miles per hour as the basis.

"And speaking of Captain Bridget, who is in the ultra exclusive '6,000-hour Club,'" concludes the Randolph Field Correspondent, "how many pilots are there in the Air Corps, if any, who can top this record?"

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REFRESHER COURSE FOR RESERVE OFFICERS

Eighteen second lieutenants of the Air Reserve, who are not graduates of the Air Corps Training Center, recently reported at Randolph Field, Texas, for the purpose of taking a special "Refresher" flying course. All of the officers reporting have had considerable flying experience, either in commercial, private, or military aviation in the form of two-week tours on active duty.

Scheduled to start their training on the Primary Stage on October 10th, it is expected that they will progress sufficiently to enable them to go to the Basic Stage when the regular class starts flying there, about October 21st.

The course for the Reserve Officers will be based entirely on the proficiency of the individual, sufficient time being spent on each of the two stages at Randolph Field and also the Advanced Flying School at Kelly Field to acquaint them thoroughly with the Air Corps method of flying. It is expected that the entire course will occupy about 12 weeks.

Upon the completion of the course, these officers will be ordered to two years' active duty with tactical organizations, with the possibility of an additional tour on active duty as a first lieutenant.

A roster of the second lieutenants taking the course includes:

F.M. Adams	Burbank, Calif.
W.S. Bagnick	Detroit, Mich.
J.O. Beckwith, Jr.	Waterville, Me.
L.R. Gibboney	Cincinnati, Ohio
W.L. Hawkins	Oklahoma City, Okla.
W.W. Holmes	Mineral Wells, Texas
R.J. Koster	Cincinnati, Ohio
C.J. Langmack	Albany, Ore.
Eugene McCurdy	Tulsa, Okla.
C.W. Maynard	Putnam, Conn.
A.J.H. Mueller, Jr.	Seguin, Texas
C.A. O'Quinn	Atlanta, Ga.
F.H. Postal	Chicago, Ill.
L.E. Thomas	Austin, Texas
C.J. Tippett	San Francisco, Calif.
N.K. Warner	Saginaw, Mich.
L.W. Sanders	Fort Wayne, Ind.
D.D. Cascio	New York, N.Y.

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THE FLOWERS THAT BLOOM IN THE FALL, ETC.

The organizations at Kelly Field, San Antonio, Texas, have worked industriously and conscientiously in the policing of areas around buildings. Even though the buildings are more than 20 years old, the post always appears neat and well kept.

The 63rd School Squadron has paid particular attention to landscaping, planting and in the development of a variety of types of plants and flowers. The landscaping was planned so that flowers with color variety adorn the barracks area all twelve months of the year. The cape jasmines would be a credit to any tropical garden. Even now in the fall months a new crop of giant zinnias are blooming in abundance. The chrysanthemums, with large heads and showy flowers, have begun to bloom. But the 63rd has the greatest pride in its roses. It has no less than 200 rose bushes, representing the most beautiful variety in America. So, even though the barracks are old, Kelly Field is a beautiful and fine place in which to live.

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Major Armin F. Herold, Air Corps, was promoted to Lieut. Colonel (temporary), with rank from October 8, 1938.

V-7865, A.C.

A VISIT TO BOGOTA, COLOMBIA

By 1st Lieut. Carl M. Parks, Air Corps

Ed. Note: First Lieut. Parks, of the 24th Pursuit Squadron, Albrook Field, Panama Canal Zone, spent a period of two weeks in Bogota, Colombia, during the month of August, as a fencing official at the Bolivarian Olympics which were held there. The following article is an account of his visit.

The "Sabana of Bogota" lies at an altitude of 8,500 feet in the mountains east of the Magdalena River of Colombia. It is a long tray-like work of nature, which Indian legend says was formerly a Lake - Lake Bogota. The legend would have us believe that many years ago a priest in search of water struck a rock with his staff and water gushed forth - pure water- forming a lake. This subsequently drained, leaving a wide expanse of practically level terrain with a few hills which possibly were once islands in Lake Bogota.

Since Bogota is so high and so near the equator, the temperature is fairly constant the year 'round. The air is cool and invigorating - downright cold to those unaccustomed to it - but the people of Bogota scoff at the idea of heating their homes.

The city has a population of about 325,000, and at the present time is undergoing intensive reconstruction. Old houses and buildings are being demolished to make way for new and modernistic structures of Spanish design. Wide new streets are being laid, and beautiful parks crowded with native flowers dot the city.

One of the several points of particular interest is the Cathedral of Monserate, which is situated atop a mountain overlooking Bolivar Pass just outside of the city. The cathedral proper is an old building to which an addition has recently been made, materials for which were carried up the mountain in the arms of natives. He is a proud Colombian who had any part in this reconstruction. A cable-car scales the mountain now, and there is an excellent view of the surrounding countryside from the top. At night, flood lights illuminate the building, and from the city below the effect is that of a cathedral in the sky.

At the point where the priest presumably struck the rock with his staff there is a waterfall called "Techandarna Falls." The river drops three hundred feet and the clouds of mist arising from the base obscure at times the hotel situated there. Vari-colored lights which play on the falls at night make it a beautiful sight, indeed. Here religious fanatics, disappointed lovers and such, constantly bring annoyance to the authorities by diving into the river from the brink of the falls. Their bodies are never recovered.

About 25 miles from the city to the north lies a mountain which to all outward appearances is much like any of the others. It is literally a mountain of salt. Huge corridors have been dynamited out of the pure rock salt which forms the mountain, with solid pillars of salt left to support the roof. There is a constant haze of acrid smoke from dynamite in the vast halls, and the air is charged with the sharp, pungent smell.

At the foot of this mountain of salt lies a typical Colombian village. In a small restaurant there I had my first taste of the rice wine, considered such a delicacy by the natives. White and milky, it has a heavy, sweetish taste which is not agreeable at the first try.

The average Colombian apparently possesses quite an appetite, for at meal time two complete and separate meals are set before you. If anything, the second is larger than the first, and it usually happens that the uninitiated has no room whatsoever left for the second. All of the food is excellent, and something might be said for the advantages of having an entirely separate dinner to resort to in the event that No. 1 is not to one's liking.

Motion pictures provide the bulk of the entertainment. Occasionally there are dances - the maidens heavily chaperoned - and there are no dance halls or cabarets. A new country club is under construction just outside of the city, and it is anticipated that it will help the entertainment situation considerably.

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DEATH OF TWO VETERAN AIR CORPS OFFICERS

The sad news was just received of the death of two veteran Air Corps officers - Colonel Percy E. Van Nostrand, commanding officer of March Field, Calif., who succumbed to a heart attack, and Major John H. Gardner, a student at the Command and General Staff School, Ft. Leavenworth, Kans., who, walking across the ramp preparatory to making a flight, did not see a plane being taxied slowly by another Air Corps officer of the School.

The deep sympathy of the Air Corps is extended to the bereaved families of these two officers.

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LITTLE ROCK, ARK., INVITES AIRMEN

The 154th Observation Squadron, Arkansas National Guard, Little Rock, Ark., now operates a Hotel DeGink in conjunction with the officers' club room. The News Letter Correspondent of that or-

(Continued on Page 8)

EYEBROWS FOR BT-9 AIRPLANES

By the Randolph Field Correspondent

The recently devised "eyebrow" slots, a product of the Air Corps Materiel Division, Wright Field, Ohio, are being installed on all BT-9 type airplanes at Randolph Field, Texas. It is expected that the total complement of planes at this station will be so equipped by the time flight training is started for the class now being transferred to the Basic Stage of the Primary Flying School. The installation of these "eyebrows" has somewhat hampered the extended navigation flights usually accomplished by the instructor staff between classes, but arrangements have been made to permit a limited number of the 9's to be available for this purpose.

The installation of the slots is being carried out at Randolph Field under the supervision of a crew from the San Antonio Air Depot, Duncan Field, Texas. As soon as the Randolph Field personnel become familiar with the installation, it is expected that the work will be turned over to them.

Many favorable comments have been heard on the operation of the slots, which are of the fixed type rather than those which go into operation when approaching a stall. Affixed to the leading edge of each wing, directly in front of the ailerons, the slots protrude about three inches from the leading edge, and pilots who have flown planes equipped with them state that they offer little or no added resistance. Their function is to permit a smooth flow of air across the ailerons at low speeds, thus aiding in the more rapid recovery from stalls and potential spins.

An acute engine shortage, which for a time threatened to disrupt student training, was solved partially when a Technical Order, changing the time for engine change on the R-975-7 from 350 hours to 300 hours, was rescinded. During the time the order was in effect, both Duncan Field, the overhaul depot for the area, and Randolph Field personnel worked overtime supplying and changing engines in the BT-9's.

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SERGEANT SAYS GOOD-BYE TO ANOTHER CLASS

The graduation exercises at Kelly Field, Texas, on Wednesday, October 5th, marked another occasion for Sergeant Joseph E. Bigley, Air Corps, one of Kelly Field's "old-timers," to say good-bye to a class at the Advanced Flying School. In Sergeant Bigley's opinion, working with the Cadets is "old stuff," and yet always fresh and exciting. He has been the First Sergeant of the Flying Cadet Detachment for seven years, and says he has met as fine a group of young men as can be found anywhere in the country today. As the result of his close contact with the Cadets, it is only natural to expect that the Sergeant made many friends among them, and he bade them farewell with reluctance.

Sergeant Bigley is a native of Vinton, Iowa. He ran away from home in 1915 and enlisted in the Canadian Army. He was a member of the Canadian Black Watch of the World War, and was a British Air Force observer. He returned to Canada in 1919 and was mustered out at Toronto. After five years in civilian life, he enlisted at Fort Snelling, Minnesota. Since then he served in Hawaii and various Air Corps fields in this country. He came to Kelly Field in 1932.

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SCOOTERS BECOME POPULAR AT RANDOLPH

According to the News Letter Correspondent, putt, putts, and not golf putts either, are all the rage at Randolph Field, the "West Point of the Air."

Motor scooters of all sizes, types and descriptions are in use on the post, and almost every day more are being added to the list of two-wheeled agencies of transportation. All are registered with the Provost Marshal's Office, and bear a Post identification tag, just like their big brothers - the automobiles.

Captain James S. Stowell, Commandant of Cadets, owns a blue and cream colored creation, with a padded seat, lights for night driving, and even a tiny horn. His scooter, however, is a "store bought" one, and is much scorned by Lieut. Joe W. Kelly, whose dingy red job is a product of his own ingenuity. A washing machine motor, retired after honorable service in motivating the automatic wash tub, furnishes the power. An automobile fan belt transmits the power to a clutch arrangement, and from there a bicycle chain and sprocket take up the burden of carrying the quarter horsepower to the rear wheel. A cigar box lid is the brake pedal, and the handle bars were salvaged from a bicycle on the junk heap.

Between these two extremes are at least 20 other scooters, some of them challenging Captain Stowell's medium of transportation for top honors. Others vie with Lieut. Kelly's pride and joy for the position at the bottom of the list.

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Little Rock Invites Airmen (From Page 7)

ganization states that all pilots and their passengers will be shown every consideration by the Squadron, and he hopes Air Corps personnel will avail themselves of these facilities. Very good meals at reasonable cost can be secured at the Municipal Airport Cafe, which is in close proximity to the hangar and administration building of the Squadron.

RIO HATO - GUNNERY CAMP OF THE 19TH WING
By 2nd Lieut. J.H. Paul, Air Reserve

Those Air Corps pilots who have served in the Canal Zone will find an old familiar ring in such names as Chame, Chepo, Chorrera, Aguadulce, Pocri, Las Lajas, David and Jaque. They will remember rain closing into Chame Pass, and the lights of the Canal locks at night, and many other things. But most of all, they will remember Rio Hato, the gunnery camp of the 19th Wing.

The landing field at Rio Hato lies 65 miles southeast of Albrook Field, along the ragged coastline of the Bay of Panama. The country thereabouts is quite similar to sections of southwest Texas - rolling lowland, veined with arroyos, and sparsely scattered with scrubby timber. In a steady northward slope the land rises to the crest of a mountain ridge midway between the Pacific and Atlantic Oceans - the Continental Divide.

Nearby are the little villages of Anton and La Venta, the latter now in the process of commercializing a mile-long beach of great beauty, and a half mile offshore in deep blue water lies the "Farallon de Chiru" - a massive rock which is a landmark for miles around and where live the hungriest fish in Christendom. A modern inn, justly famous throughout the Panamanian Republic, stands on a bluff overlooking the sea. Its owner, Mr. Asger Kierulff, a native of Denmark, is the principal landholder in the vicinity, and it is from his land company that the Army leases the land at Rio Hato.

In April of 1934, Major R.L. Walsh, Air Corps, who then commanded the 16th Pursuit Group at Albrook Field, recommended in a letter to the late Lieut. Colonel Wm. C. McChord, Commander of the 19th Wing, that the landing field at Rio Hato be considered as a base of operations for ground and aerial gunnery and for field maneuvers. Major Walsh drew attention to the fact that the area was particularly suitable because of the fact that there were no populated areas nearby; that the country was not heavily wooded, and he pointed out other favorable facts. Mr. Kierulff had stated in a letter to Colonel McChord that the Air Corps was quite welcome to the use of his property for gunnery purposes, pointing out that the place was ideal, with a good well, the absence of malarial mosquitos, and with decidedly less rainfall than areas nearer the Canal. He further stated that there would be no cost to the government involved.

Thus the project was initiated. Since the spring of 1934, there has been a constant and growing use of the field at Rio Hato. Barracks and sheds were built, the field improved, gunnery ranges laid out, more land was secured from the owner through leases. Gunnery camps were held; Wing maneuvers were based there, and from time to time additions were made to equipment and installations.

Early in the summer of 1938, with the procurement of additional funds, the 19th Wing commenced a program of construction and re-construction at Rio Hato, with a view to converting it into a permanent auxiliary base, with buildings to replace tents and facilities to care for a larger number of officers and men. Work was commenced immediately, with troops of the 11th Engineers from the post of Corozal, commanded by Captain Warren N. Underwood, taking charge of new construction.

Barracks were built to house a hundred men and eighteen officers. A long and roomy mess hall was constructed, and kitchen fixtures were installed. A sewage disposal system was planned and constructed. Sheds and storage houses were repaired and concrete walks were laid. An officers' recreation hall came into being by building an addition to an old adobe cabin. Facilities for a post exchange were built into one end of the mess hall. A new well was dug, thus increasing the formerly scanty water supply.

When the detachment of Engineers left, the camp at Rio Hato was ready. The buildings were newly painted, and all installations were complete. On the evening of August 29th, all of the officers of the 19th Wing were on hand for the opening of the camp with a Wing Dinner, and enthusiasm ran high. Everywhere it was agreed that field maneuvers there would take on a new degree of comfort, convenience and efficiency.

The camp at Rio Hato becomes of ever increasing importance in the projects of the Air Corps in Panama.

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PAVED RUNWAYS AT ALBROOK FIELD

A call for bids has been made by the War Department for the construction of paved runways at Albrook field. The specifications call for one runway of approximately 2,500 feet in length by 200 feet in width and another approximately 1,000 feet in length by 75 feet in width. The runways will fill a need at this station which has been felt for some time, as operations are greatly hindered at times due to the heavy rainfall. No dates have been announced for the commencement of the project, but it is anticipated that it will go forward with all possible speed.

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A VERSATILE AIR CORPS ORGANIZATION

The Base Headquarters and 20th Air Base Squadron, with station at Nichols Field, Rizal, P.I., and commanded by Major E.J. Carpenter, Air Corps, is well represented in practically every activity on the post. In addition, it furnishes 62 men to Clark Field and a smaller number to several units in Manila, such as operators for the Air Corps Crash Boats, to the Philippine Department Headquarters, Philippine Division Military Police, Philippine Department Motor Transport Pool, Camp John Hay and students at Fort William McKinley, P.I.

With its present strength of 363 men and the activities to which they are distributed, it is readily understood how many vocations are required by the members of this organization and their importance.

Captains Alden R. Crawford, Mark K. Lewis, Jr., and 1st Lieut. Charles H. Anderson, Air Corps, are attached to the Office of the Military Advisor, Government of the Commonwealth of the Philippines. Captain Crawford is the Acting Chief of the Bureau of Aeronautics, and Captain Lewis is the Acting Chief of the Philippine Army Air Corps, while Lieut. Anderson is the Operations Officer and Chief Flying Instructor of the Philippine Army. Captain J.P. Kirkendall is on detached service at Clark Field. He is the Adjutant of that post and looks after the welfare of the 62 men detached from this organization at that station.

Other officers of the Squadron are 1st Lieut. John Paul (Paddy) Ryan, who is Squadron Adjutant, Custodian of Funds and Chemical Warfare Officer, with additional post duties as Range Officer and Officer in Charge of the Air Corps Maintenance. He is at present supervising the construction of a runway, which is nearing completion and which will be beneficial to the taking-off and landing of aircraft, particularly during the rainy season, when much of the field heretofore was inundated during that time. First Lieut. German P. Culver is Squadron Mess Officer and Assistant Post Transportation Officer, and 2nd Lieut. William E. Covington, Jr., is Supply Officer and Assistant Squadron Adjutant.

Major Carpenter has been instrumental in bringing about several improvements within the Squadron, namely, the construction of sidewalks, enlargement of the squadron mess and the installation of ten large ceiling fans in the barracks which provide practically "Air Conditioned" sleeping quarters for the entire personnel.

In spite of the enormous turnover of personnel, the organization operates methodically, with a high morale and a minimum of the difficulties experienced by similar organizations of its size. Incidentally, the 363 men previously mentioned did not include 39 Philippine Scouts and 5 enlisted men from other branches. The Philippine Scouts maintain the Philippine Department Stables which are located at Nichols Field.

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AERIAL GUNNERY TRAINING IN PHILIPPINES

Air Corps officers of the 4th Composite Group, Nichols Field, P.I., recently completed another phase of their Group Training Directive at the completion of aerial gunnery and bombing practice. Fourteen officers participated in the record practice and ten of them made qualifying scores.

In firing for the qualification of Aerial Gunner, nine of the ten officers fired Observation Course 3 and one, 1st Lieut. Norman R. Burnett, fired Pursuit Course 4. This officer, with a score of 680, attained the qualification of "Marksman."

Officers who attained the qualification of "Expert" were 2nd Lieut. W.E. Covington (800); Captain J.P. Kirkendall (704); 2nd Lieut. C.K. Bowen, Jr. (662); 1st Lieut. Tom W. Scott (652) and 2nd Lieut. J.J. Nazzaro (603). The qualification of "Sharpshooter" was attained by 1st Lieut. H.N. Burkhalter, Jr., and 2nd Lieut. J.R. Gunn, whose scores were 568 and 517, respectively. First Lieut. Andrew Meulenberg with a score of 436, and Captain Fred O. Tally, with 432, qualified as "Marksman."

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ANNUAL INSPECTION OF SELFRIDGE FIELD

Lieut. Colonel Junius W. Jones, Air Corps, (Inspector General's Department), who visited Selfridge Field, Mich., for the purpose of making the regular annual inspection of the activities of this post, commented very favorably on its condition and offered assistance in obtaining the required needs for a field of this proportion.

Col. Jones, accompanied by Major Lawrence P. Hickey, 1st Pursuit Group Commander, made an inspection of the hangars and barracks of the Group during the morning of October 6th. The afternoon was devoted to inspection of the Air Base Supply, Commissary, Base Communications, 2nd Weather Squadron Detachment and the Security Section. On October 8th, the personnel of the Base Headquarters and 3rd Air Base Squadron were inspected in ranks, followed by fifteen minutes of close order drill. During the remainder of the day, Colonel Jones, accompanied by Colonel Henry B. Clagett, Air Base Commander, and Lieut. Colonel Laurence F. Stone, inspected the Base Squadron Barracks, Officers' Club and Mess, N.C.O. Club, Chaplain's activities, Base Hospital, Base Engineering and Ordnance.

CHANGES IN THE OCTOBER, 1938, CLASS AT RANDOLPH FIELD

In the issue of the Air Corps News Letter of September 15, 1938, it was stated that a total of 228 candidates had qualified for appointment as Flying Cadets and were slated to report at the Air Corps Primary Flying School at Randolph Field, Texas, on October 10th to begin training with the October, 1938, class.

Since the publication of the above, the number of Flying Cadets in this new class was increased to 236, but quite a number of changes were effected in the personnel of this class. A total of 54 candidates among those already listed for Flying Cadet appointment declined same for various reasons, the majority of them expressing their desire to enter the July,1939, class. Among these latter are quite a number of Reserve officers of other branches of the service who are now on active duty status and who preferred to delay their flying training until the termination of their active duty tours. Others who are still attending college decided to wait until their graduation therefrom. These 54 vacancies were filled by other eligible candidates and eight additional ones were also selected, thus making the numerical strength of the Flying Cadet student body in the October, 1938, Class 236, as previously stated.

The candidates previously listed as being selected for Flying Cadet appointment and who subsequently declined same are given below, as follows:

Woodward, John	Fort McClellan, Ala.
Campbell, Murry Oates	Cane Hill, Ark.
Nickels, Clabourne Woodrow	Little Rock, Ark.
Viverette, Donlyn	Berkeley, Calif.
Williams, James Rhue	Clovis, Calif.
Barr,Clifton Franklin	Colorado Springs, Colo.
Nowells,Richard Wright	Colorado Springs, Colo.
Ciccalone, Thomas James	East Hartford, Conn.
Greco, Ralph Louis	Kensington, Conn.
Marshall, John Donald	Savannah, Ga.
Poulson, Paul, Jr.	Boise, Idaho
Beardsley, Henry Lindorf	East St. Louis, Ill.
Whitehurst, Junius Prentice	Peoria, Ill.
Floyd, Harold	Talamco, Ill.
Swinehart, Marion Louis	South Bend, Ind.
Bair, Robert Yarnell	Des Moines, Iowa
Parsley, Herold Vincent	Hornick, Iowa
Eyres, William Gordon	Le Mars, Iowa
Ford, Eugene Matthew	West Bend, Iowa
Pollom, Lester Winner	Topeka, Kans.
Davis, Eugene	Noxanna, Ky.
Tower, John R.	Easton, Md.
Blakely, Carl Paul	Boston, Mass.
Regan, Payl Gerard	Boston, Mass.
McGrath,John Francis,Jr.	Jamaica Plain, Mass.
Walden, David Carroll	Milton, Mass.
Frederick, Julian Ross	Ann Arbor, Mich.
Bash, Robert Edwin	East Lansing, Mich.
Kaiser, William Francis	Flint, Mich.
Ferrell, Max Everett	Cass Lake, Minn.
Wall, Marvin R.	Minneapolis, Minn.
McCorkle, Leon M.	Salisbury, Mo.
Hauk, Paul Ignatius	Malta, Mont.
Larson, Robert Sherman	Thompson Falls, Mont.
Wood, William Johnston	Albuquerque, N. M.
Baar, Charles F.	Syracuse, N. Y.
Speers, Charles Frederick	Syracuse, N. Y.
Hoffman, Charles Calvin	Dewey, Okla.
Trosper, Earl Joseph	Oklahoma City, Okla.
Showalter, Frank M.	Reno, Nevada
Boatwright,Lewellyn T.,Jr.	Ridge Spring, S.C.
McKemie, Jack F.	Hearne, Texas
Nendell, Jack A.	Randolph Field, Texas
Travis, Frank H.	Lexington, Va.
Sherman, James Christian	Newport News, Va.
Venable, Eugene Roane	Roanoke, Va.
Harrell, Richard O., Jr.	South Boston, Va.
Simmons, Harold Ernest	Seattle, Wash.
Flowers, Noel Quentin	Silverdale, Wash.
McFarland, Donald L.	Spokane, Wash.
Lowman, William Morris	Buckhannon, W. Va.
Dawson, James Stenger	Morgantown, W. Va.
Raab, Hilary A.	Laramie, Wyo.
Burke, Richard Patrick	Newburyport, Mass.

The 62 new candidates selected for Flying Cadet appointment for the October, 1938, class are listed below, as follows:

Wood, James William, Jr.	Birmingham, Ala.
Parker, Harry	Jerome, Ariz.
Seeburger, Francis F.	Crockett, Calif.
Ehret, Roland C.	Los Angeles, Calif.
Albin, George Louis	San Diego, Calif.
Wetherell, Wells Seymour	Manchester, Conn.
Eager, Howard, Jr.	Washington, D.C.
Cauthen, Columbus Frank	Atlanta, Ga.
Behm, Raymond Gaston	Decatur, Ga.
Arp, David Hayden	Ellijay, Ga.
Sapp, Russell Hale Vincent	Nampa, Idaho
Hanes, Horace Albert	Armington, Ill.
Booth, David F.	Chicago, Ill
Brennan, Edward Joseph	Chicago, Ill
McCorkle, John	Chicago, Ill
Nowak, Albert C.	Chicago, Ill
Ford, John Willard	Indianapolis, Ind.
Brady, Patrick Andrew	Boston, Mass.
Bacon, David	Jamaica Plain, Mass.
Evans, John Richard, Jr.	Newton Center, Mass.
McCulloch, John R.	Newton Highlands, Mass.
Oswin, Leonard Walter	Northampton, Mass.
McWilliams, George E.	Detroit, Mich.
Fanckboner, Austin F.	Grand Rapids, Mich.
Strathern, William E.	Gilbert, Minn.
Korte, Heimo John	Grand Rapids, Minn.
Mathieu, John Ralph	Middle River, Minn.
King, Arthur Christere	Kansas City, Mo.
Martin, Bert C.	Harlowton, Mont.
Lindberg, Allen	Westfield, N.J.
Freeman, Daniel W.	Brooklyn, N.Y.
Freeland, Frank	Brooklyn, N.Y.
Genovese, Joseph R.	Brooklyn, N.Y.
Bennink, Donald Thomas	Chautauqua, N.Y.
Harsh, Forrest R.	New York, N.Y.
Landes, Sidney Winston	New York, N.Y.
Passage, John T.	Charlotte, N.C.
Sloan, William Green	Wilmington, N.C.
Dahl, Alva Elroy	Minot, N.D.
Chapin, William E.	Dayton, Ohio
Hoffman, Gerald Ward	Claremore, Okla.
Burhus, John L.	Eufaula, Okla.
Askew, Richard Franklin	Oklahoma City, Okla.
Boyce, Robert B.	Bridgeville, Pa.
Evans, Robert W.	Kingston, Pa.
Steinmetz, Joseph Alexander	Pittsburgh, Pa.
Piollet, Victor Emile	Wysox, Pa.
Kinnard, Claiborne H., Jr.	Franklin, Tenn.

Griggs, Lyndall	Friendship, Tenn.
Anderson, Thomas Wilson	Nashville, Tenn.
Brown, Malvern Hill W.	Nashville, Tenn.
Pennington, Richard B.	Old Hickory, Tenn.
McDonald, Wm. Emory	Corsicana, Texas
Davis, Phillip Martin	San Antonio, Texas
Schauer, Paul C.	San Antonio, Texas
Easley, Samuel J.	Alexandria, Va.
Wertenbaker, George L., Jr.	Charlottesville, Va.
Kinney, Charles B.	Browmton, W.Va.
Bathke, Burton C.	Milwaukee, Wis.
Hutchinson, Arthur Mills	Cheyenne, Wyo.

Flying Cadets, Enlisted Men

Harper, Henry A.	Belleville, Ill.
Company G, 11th Inf.,	Ft. Benj.Harrison,Ind.
Walsh, Rayfield Wm.	Texarkana, Texas
6th Air Base Sqdn.,	Barksdale Field, La.

In the October class as now constituted, including the 113 second lieutenants of the Regular Army, who graduated from the U.S. Military Academy, West Point, N.Y., in June, 1938, and were assigned to the Air Corps for flying training, Illinois leads the States represented with a total of 32 students, followed by New York with 27. Other States which are represented by five or more students are Pennsylvania with 18; California, 17; Oklahoma, 15; Alabama and Massachusetts, 14 each; Tennessee, 13; Michigan and Ohio, 12 each; New Jersey and Georgia, 10 each; Arkansas and Texas, 9 each; Iowa, 8; Virginia, 7; Connecticut, Kansas, Minnesota and Mississippi, 6 each; Florida, Indiana, Louisiana, Missouri, Washington and Wyoming, 5 each.

Keeping in step with her State, Chicago leads the cities represented in the new class, with 14 students. Other cities represented by three or more students are New York City with 6; Los Angeles, Calif., and Washington, D.C., 5 each; Little Rock, Ark., Seattle, Wash., and Detroit, Mich., 4 each; Brooklyn, N.Y., and Champaign, Ill., 3 each.

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STATION ASSIGNMENTS FOR NEW AIR CORPS OFFICERS

In the previous issue of the Air Corps News letter there was listed the names of 188 second lieutenants, who recently passed the competitive examination, and were commissioned in the Air Corps, Regular Army, as of October 1, 1938. The station assignments of these new officers were also given except in the cases of those enumerated below who recently received orders assigning them to stations, as follows:

To Randolph Field, Texas: 2nd Lts. Philip Beeton Klein, Donald William Haarman.

To March Field, Calif.: 2nd Lieuts. Richard Frederick Lorenz, Thomas Kerns Hampton, Marcus Fleming Cooper, John Mark Ferris, Ansley Watson, Jesse Anders Smith.

To Hamilton Field, Calif.: 2nd Lts. Donald Root Strotner, Bernard Adolf Schriever, Harry Wilson Markey, Donald Ellis Ridings.

To Langley Field, Va.: 2nd Lieuts. Raleigh Hunter Macklin, Joshua Thomas Winstead, Jr.

To Mitchel Field, N.Y.: 2nd Lieuts. Mayhue Delbert Blaine, James Oldham Ellis.

To Bolling Field, D.C.: 2nd Lieut. Marvin Christian Demler.

To San Antonio Air Depot, Texas, for duty with 3rd Transport Squadron: 2nd Lieuts. Leslie Etheridge Martin, Edward George Kiehle.

To Middletown Air Depot, Pa., for duty with 2nd Transport Squadron: Leonard Muir Rohrbough, James John Roberts.

To Rockwell Air Depot, Coronado, Calif., for 4th Transport Squadron: 2nd Lieuts. Thomas Scott Algert, William Waring Miller.

To Fairfield Air Depot, Patterson Field, Ohio, for duty with 1st Transport Squadron: 2nd Lts. Evart Wilbur Hedlund, Kenneth Wilbur Lawver.

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COMMISSIONS FOR MARCH FIELD RESERVE OFFICERS

Of 63 March Field Reserve officers who took the competitive examination for Regular commissions, twenty-four, or 38%, were appointed 2nd Lieutenants in the Air Corps, Regular Army, on October 1, 1938, viz:

32nd Bombardment Squadron

Connally, James T.	Waco, Texas.
McIntyre, Patrick W.	Chicago, Ill.
Schmitt, Arthur W., Jr.	Madison, N.J.

30th Bombardment Squadron

Byerly, Jean P.	Estes Park, Colo.
Bordelon, Henry O.	Marksville, La.
Schwanbeck, Raymond V.	Ash Fork, Ariz
Reynolds, Elbert D.	Beaumont, Texas
Ketcham, Edward W.	Madison, S.D.
Hardy, Robert F.	Flint, Mich.
Ferris, John M.	Detroit, Mich.
Schaetzel, George E.	Alhambra, Calif.

19th Bombardment Group

Kreps, Kenneth R.	Riverside, Calif.

38th Reconnaissance Squadron

Ecklund, Sven H.	Los Angeles, Calif.
Herlick, Conrad J.	San Bernardino, Calif.

34th Attack Squadron

Rendle, Irvine A.	Rawlins, Wyo.
Box, Clyde	Nevada, Texas
Hatcher, William A., Jr.	Detroit, Mich.

95th Attack Squadron

Travis, James L.	Portland, Ore.
Funk, Ben I.	Wray, Colo.
Lorenz, Richard F.	Chicago, Ill.
Wilson, Delmar E.	Ephrata, Wash.

73rd Attack Squadron

Bywater, Murray A.	Salt Lake City, Utah
Carlson, Arthur C., Jr.	Jerome, Ariz.
Gallagher, Francis B.	El Paso, Texas

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AIR CORPS OFFICER ON DUTY WITH NAVY

Lieut. Colonel Early E.W. Duncan, who has been Public Relations Officer at March Field, Riverside, Calif., since 1936, was recently ordered to San Diego, Calif., for one year's duty as War Department Representative on the staff of the Commandant of the Aircraft Battle Force.

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COLONEL FRANK APPOINTED BRIGADIER GENERAL

Colonel Walter H. Frank, Air Corps, was appointed, effective September 30, 1938, as temporary Wing Commander, with the rank of Brigadier General in the Air Corps.

NATIONAL GUARD AIRMEN FAIL TO QUALIFY AS SAILORS

Lieut. Chester A. Cockrill, author of the article on the encampment at Valparaiso, Fla., of the 154th Observation Squadron, Arkansas National Guard, and which appears elsewhere in this issue, tells a very amusing incident which occured shortly following the arrival of the National Guard airmen at the camp.

The convoy and flight arrived at Camp Eglin, Valparaiso, Fla., on Saturday. The next day, being Sunday, all officers were granted leave, with the understanding that they would be back at the camp in time for retreat at 5:30 p.m. An important officers' meeting was scheduled for 6:30 p.m., in preparation for flying operations during the camp.

That afternoon, Captain Charles M. Taylor, Lieut. Joel Y. Ledbetter and Lieut. Cockrill, clad only in swimming trunks, rented an 18-foot sailboat at Fort Walton and attempted to sail it down Choctawhatchee Bay to Valparaiso, a distance of approximately eight miles. Just before leaving, the owner of the boat very carefully explained to us how to operate the running lights. I thought it was funny at the time. He assured us, however, that there would be no need for the lights; that once we got out in the middle of the bay we would strike a strong wind, and that it would not take us more than an hour and a half at the most to get to "Val-p." We had no difficulty getting started and soon arrived at the highway bridge, which we had to pass under.

Our mast was too high, so, as instructed, we blew on the ship's horn three times and, after tacking around several times, the bridge was finally opened, tying up traffic, and we were away like a house on fire. We had no more than passed under the bridge than the wind died down. We never did strike the promised breeze, and from that time on we barely moved - and then sometimes backwards. At dusk we arrived at the entrance of Valparaiso Bay, where we encountered a strong land breeze. Despite my comrades' claims that they were experienced sailors, they could not tack successfully into the narrow bay. Shortly after dark, the wind died down and we were again becalmed. We began drifting aimlessly out into the bay towards the Gulf and could tell from the drag on our anchor that the outgoing tide was going to carry us out into the Gulf. We attempted to light our running lights and found that only the red light had any wick or coaloil. We attempted to signal for help with the red light, but with no result. We shouted and I blew SOS on the ship's horn until I was out of breath, but try as we might we could attract no attention. Not having a paddle, we tried to tear up the floor boards, but they were securely nailed. We had no tools of any kind. We frantically worked the tiller back and forth, but the tide was too much for us. We just knew all the fish breaking around the boat were sharks and had visions of going to sleep and falling off the boat, which was not big enough for three people to sleep on.

At 10:30 p.m., we heard the motor of a boat and finally attracted its attention with our red lantern. Luckily, we had drifted into the Gulf in the path of a fishing boat returning from a two days' fishing trip in the Gulf. We were towed in to "Val-p" and none of us has been in the boat since.

Eight and one-half hours in a small sailboat, clad only in swimming trunks, with no food, water, cigarettes or stimulants was an experience that none of us wish to repeat. We all decided that the air was much safer than the water. Just before we were rescued I suggested that we use our last match to burn the sails, as they weren't doing us any good anyway. Captain Taylor, being the instigator of the trip, was blamed for all our ill luck, and we accused him of having shot the Albatross. What we needed was a sea captain and not a captain in the National Guard. Major Adrian Williamson was so relieved to find us that he forgot to discipline us for missing the officers' meeting.

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AVIATION ORDNANCE SCHOOL STARTS NEW CLASS

Lieut. Commander Ernest W. Litch, Naval representative of the General Headquarters Air Force staff, spoke briefly on October 3rd at the opening of the fourth annual two-month's course of instruction at the School of Aviation Ordnance at Langley Field, Va. He discussed the relationship and the importance of properly assembled bombs and equipment in the airplane of today and stated the Navy was interested in aviation ordnance.

Lieut. Colonel Russell L. Maxwell, Commanding Officer of the Tenth Ordnance Service Company and Ordnance Officer of the GHQ Air Force, and Captain Edward P. Mechling, Commanding Officer of the First Platoon, also presented viewpoints on the importance of ordnance in the Air Corps.

At the time the Langley Field branch of the School of Aviation Ordnance officially announced its enrollment of eleven students in the study of bombardment bombs, five other air bases also started their respective courses of instruction, including pyrotechnics at Mitchel Field, N.Y.; administrative study at Hamilton Field, Calif.; Attack bomb course at Barksdale Field, La.; ma-

chine gun and aircraft at Selfridge Field, Mich.; and at March Field, Calif., instructors will train Ordnance Reserve officers as assigned to the GHQ Air Force.

T.L. Gaines, Hampton, will be instructor in ammunition at the local school, with Sergeant Fred A. Riley as instructor in small arms. The students include Staff Sergeants G.A. Aamold and R.R. Fitzwater, of the First Platoon; Privates Henry Charletta and R.L. Vick, of the 49th Bombardment Squadron; F.L. Poisker and J.J. Guzewich, of the 96th Bombardment Squadron, and W.A. Brown, W.W. Boyd, C.E. Jackson, B. Kinley and C. Lambert,. of the First Platoon.

Commander Litch arrived at Langley Field on October 3rd from Pensacola, Fla., where he has been stationed for some time. Born in Boston, Mass., on November 22, 1897, he graduated from the Naval Academy at Annapolis, Md., in 1919. During his years of Naval aviation service he has served on all the airplane carriers in the United States Fleet.

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AIR CORPS ACTIVITIES IN HAWAII

The 4th Reconnaissance Squadron has been engaged in transition and familiarization flights in B-18 airplanes with the 23rd Bombardment Squadron. At this writing, all pilots have been checked off and are now making additional flights for more thorough familiarization. Five of the Squadron's B-12's have already been transferred out, and the hangar is being made ready with additional hoists and wing lifts for B-18 assembly.

The activities of the 23rd Bombardment Squadron during the first two weeks of September were devoted primarily to checking off and giving B-18 transition flying to all assigned officers of the 4th Reconnaissance Squadron. These officers, who are shortly to begin operations with their own B-18 airplanes, tackled the transition flying with much eagerness. As a result, all were checked off as soon as the minimum flying time requirements were fulfilled in either the pilot or co-pilot status, depending upon their qualifications. After checking off, all were given five hours additional flying to become more familiar with the B-18's before they start work with their own planes.

With the aid of the two B-12's from the 4th Reconnaissance Squadron, the 23rd Bombardment Squadron has been carrying on aerial gunnery off shore from Kaena Point. So far, only practice courses have been fired, but the entire Squadron is waiting for the record firing to see how the combat crews compare.

The first four months' course for enlisted combat crewmen has been completed and all who took the Squadron course of instruction were given their final examination the first week of September. The grades have not yet been published, but all who had anything to do with the school feel that the results will be satisfactory.

The 31st Bombardment Squadron has taken over the rehabilitation of the Hickam Field tent camp for the month of September. In addition to many minor construction details, the men of this organization will construct a new mess hall, kitchen and day room. Flying has been cut to a minimum for the month.

The 72nd Bombardment Squadron was busy during the last two weeks of September familiarizing the personnel of the 50th Reconnaissance Squadron with the B-18 airplane. It is anticipated that in the near future the 50th Squadron will be equipped with B-18's to replace the B-12's they are now using.

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PERSONNEL NOTES

The following-named A.C. officers, who held temporary appointments in the grades indicated, received permanent appointment in such grades, with rank from October 1, 1938, viz:

Lieut. Colonel Oliver P. Echols, Majors Ralph B. Walker, Clarence B. Lober, John K. Cannon, Arthur J. Melanson, Theodore J. Koenig, Grandison Gardner, Alvan C. Kincaid and Omer O. Niergarth.

Effective October 1, 1938, Captain Kenneth N. Walker was appointed to the grade of Major (temporary).

Upon their own application, Major Edward D. Jones, of Hamilton Field, Calif., was retired from active service, effective September 30, 1938, after more than 21 years' service, while Colonel Albert L. Sneed, stationed at Maxwell Field, Ala., is to retire from active service, effective December 31, 1938, after more than 34 years' service.

Lieut. Colonel Charles B. Oldfield, Air Corps, was assigned to duty as Commanding Officer of Air Corps troops at Fort Lewis, Wash.

Upon the completion of his tour of duty in the Hawaiian Department, Captain Frank D. Klein, Air Corps, is assigned to duty at Hamilton Field, Calif.

Air Reserve officers assigned to active duty at Randolph Field, Texas, to October 2, 1940, are 2nd Lieuts. Lewis A. Sanders, Fort Wayne, Ind., and Don Monenick Cascio, Staten Island, N.Y. Other Reserve officers assigned to this station are 2nd Lts. Joseph C. Mackey, of Columbus, O., and John A.H. Miller, Coffeyville, Kans., to October 9th and 7th, 1940, respectively.

AIR DEMONSTRATION AT LEGION CONVENTION

With its customary phrase - "A routine flight" - twelve B-17's of the Second Bombardment Group took off at sufficient intervals and on different routes, so that each flight would be individual, for March Field, Calif., to participate in the exercises incident to the American Legion Convention. All kinds of weather was encountered, with headwinds of considerable force. The weather at March Field, the terminal, was quite bad, but all ships got through without any mishap.

As is fitting for a superior airplane (the B-17), the 2nd Bombardment Group of Langley Field led the parade, and the B-17's aroused much comment due to their appearance of streamlined efficiency.

Touching on the participation of the 49th Bombardment Squadron in the aerial demonstration during the American Legion Convention, the News Letter Correspondent states that the officers who navigated to and from the West Coast were those other than the qualified Celestial navigators, but that the 49th came through as usual. The Squadron completed the mission non-stop from Langley Field to March Field, as originally planned. The respective elapsed times of the planes of the 49th were 12:30, 12:40 and 13:10 hours.

All officers of the 20th Bombardment Squadron, with the four B-17 airplanes, participated in the aerial demonstration during the Legion Convention at Los Angeles. This Squadron flew individual navigation missions approximately eight minutes apart.

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CONGRATULATIONS FOR GENERAL KILNER

Officers and enlisted men at Langley Field, Va., were elated when the news was received that Colonel Walter G. Kilner, Chief of Staff, GHQ Air Force, had been promoted to the post of Assistant to the Chief of the Air Corps, with the rank of Brigadier General. The newly appointed Brigadier General was at his desk when the news was received, and throughout the day he was kept busy answering congratulatory calls from military associates and over the telephone.

"The appointment came as a complete surprise to me," the new Assistant Chief said, "and I am gratified with the many felicitations that have come to me. I have nothing more to say at this time."

General Kilner is a native of Syracuse, New York. He graduated from the United States Military Academy, West Point, N.Y., in 1912, and two years later he joined the Aviation Section, Signal Corps. He served at a number of fields, attended the Tactical School at Maxwell Field, Ala., the Army Industrial College and the Army War College at Washington, D.C., and the Air Corps Engineering School when it was located at McCook Field, Dayton, Ohio. He came to Langley Field, Va., about two years ago as Chief of Training and Operations. He was assigned as Chief of Staff of the GHQ Air Force on September 1, 1938.

Special Orders of the War Department, recently issued, relieved Brigadier General Walter G. Kilner, Assistant to the Chief of the Air Corps, from detail as a member of the General Staff Corps and from assignment to the General Staff with troops, and from further duty as Chief of Staff, GHQ Air Force, Langley Field, Va., and assigned him to duty in the Office of the Chief of the Air Corps, Washington, D.C.

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NOTES ON LANGLEY FIELD ACTIVITIES

Since the B-15 has been assigned to Langley Field and to the 49th Bombardment Squadron, so many senior officers have evinced a desire to see this plane that tours are conducted, and Lieut. Robertson was made "Chief Guide" for the inspection of the B-15. The scribe of the 49th states that "Robbie" has proved to be quite an orator, with a vast fund of information, and so he was delegated as Chief of the Rubber-Neck Section of the 49th.

All of the Reserve officers of the 49th Bombardment Squadron who took the examination for commission in the Regular Army Air Corps received them, and so the 49th again came through a hundred percent. Congratulations and best wishes are extended to the new second lieutenants - John B. Montgomery, Henry C. Godman, Bela A. Harcos and John H. Eakin.

During the latter part of August, the 96th Bombardment Squadron was given one of the new B-18A Bombardment planes for comparison tests with the B-18. All officers who had the opportunity of flying this airplane commented on the increased comfort of this latest type plane.

The 96th Bombardment Squadron is proud to announce that all enlisted men assigned to the Bombardiers' School successfully passed the course and qualified as Bombardiers.

Lieut. G.E. Williams, of the 20th Bombardment Squadron, recently established what is believed to be a military record at skeet shooting. One hundred and fifty birds were broken before one got away intact.

The Hqrs. and Hqrs. Squadron, 2nd Bombardment Group, now has two BC-1's, Captain C.E. O'Connor recently ferrying one to Langley Field from the North American Aircraft Corporation, Inglewood, Calif.

AIR CORPS OFFICERS IN THE PHILIPPINE DEPARTMENT
By the News Letter Correspondent

For the information of the readers of the Air Corps News Letter, we publish the following list of officers who are now performing duty in the Philippine Department, showing also the date their foreign service commenced:

Rank	Name Name	Tour started	Remarks (Principal duty)
Lt. Col.	Royce, Ralph	June, 1937	Air Officer
Lt. Col.	Crom, William H.	Oct. 1937	C.O. Nichols Field and 4th Composite Group
Major	Seaton, David S.	Feb. 1937	C.O. Philippine Air Depot.
Major	Blackburn, Lloyd C.	May 1938	C.O. 2nd Observation Squadron
Major	Carpenter, Earle J.	Oct. 1937	C.O. Base Hqrs. and 20th Air Base Squadron
Major	McNeil, Guy L.	Feb. 1938	C.O. 28th Bomb. Squadron (Clark Field)
Major	Backes, Charles	Oct. 1937	Group Operations Officer
Captain	Crawford, Alden R.	Oct. 1937	Duty with Philippine Commonwealth Govt.
Captain	Kirkendall, John P.	Feb. 1938	Adjutant, Clark Field, (temporary duty).
Captain	Bacher, Frederick A. Jr.	Oct. 1937	Philippine Air Depot.
Captain	Lewis, Mark K., Jr.	May 1937	Add. duty Commonwealth Government.
Captain	Harbold, Norris B.	May 1937	C.O., 3rd Pursuit Squadron.
Captain	Tally, Fred O.	July 1937	Philippine Air Depot
1st Lt.	Brownfield, Ralph O.	July 1937	Post Exchange Officer
1st Lt.	Pillet, Frederick A.	Oct. 1936	Group Com. and Armament Off.; Post Sig. Off.
1st Lt.	Imlay, Talma W.	May 1937	Philippine Air Depot
1st Lt.	Hood, Reuben C., Jr.	July 1937	Post & Group Adjt.; Publicity and Inf. Off.
1st Lt.	Ryan, John P.	Feb. 1937	Base Hq. and 20th Air Base Sqdn. A.C. Maint.
1st Lt.	Brownfield, Leon R.	May 1937	28th Bombardment Squadron, Clark Field
1st Lt.	Scott, Tom W.	Oct. 1937	2nd Obs. Sqdn. (Engr. and Parachute Officer)
1st Lt.	Calhoun, Frederick E.	July 1937	Philippine Air Depot
1st Lt.	Burnett, Norman R.	Oct. 1937	3rd Pursuit Sqdn. Operations and Engr. Off.
1st Lt.	Miller, Joseph A.	May 1937	Post Engr. Off. and Post Inspector
1st Lt.	Motherwell, David N.	July 1937	28th Bomb. Squadron, Clark Field
1st Lt.	Bowman, Wendell W.	July 1937	28th Bombardment Squadron, Clark Field
1st Lt.	Anderson, Charles H.	July 1937	Add. duty Philippine Commonwealth Gov't.
1st Lt.	Harris, Hunter, Jr.	Feb. 1937	28th Bombardment Squadron at Clark Field
1st Lt.	Meulenberg, Andrew	Feb. 1938	2nd Obs. Sqdn. Photographic and Armament Officer; Provost Marshal
1st Lt.	Burkhalter, Harry N., Jr.	July 1937	2nd Obs. Squadron, Adjutant, Operations and Communications Officer.
1st Lt.	Blair, Jerome E. II	Oct. 1936	3rd Pursuit Squadron Supply and Parachute Officer
1st Lt.	Donovan, Stanley J.	Oct. 1936	28th Bombardment Squadron at Clark Field
1st Lt.	Culver, German P.	May 1938	Base Hqrs. and 20th Air Base Squadron Transportation Officer
1st Lt.	Neal, John O.	Oct. 1937	Headquarters Squadron, Assistant Post Engineering Officer and Inspector
2nd Lt.	Maschmeyer, Edward W. *	July 1937	2nd Observation Squadron, Assistant Operations Officer
2nd Lt.	Combs, Cecil E.	Feb. 1938	3rd Pursuit Squadron Communications Officer and Assistant Engineering Officer
2nd Lt.	Gunn, James R.	May 1938	2nd Observation Squadron, Supply Officer
2nd Lt.	Bowen, Carl K., Jr.	Feb. 1938	2nd Observation Squadron Communications and Operations Officer
2nd Lt.	Bartella, John M.	Feb. 1938	3rd Pursuit Squadron Adjutant
2nd Lt.	Gray, Jackson H.	May 1938	3rd Pursuit Squadron Mess Officer
2nd Lt.	Covington, Wm. E., Jr.	Feb. 1938	Base Hqrs. and 20th Air Base Squadron Supply Officer
2nd Lt.	Nazzaro, Joseph J.	Feb. 1938	Headquarters Squadron Adjutant and Supply Officer
2nd Lt.	Necrason, Conrad F.	Feb. 1938	3rd Pursuit Squadron Armament Officer
2nd Lt.	Todd, Paul E.	May 1937	28th Bombardment Squadron at Clark Field

* Air Reserve

AIR CORPS NEWS LETTER



PRESENTATION OF MACKAY TROPHY FOR 1937.
GEN. ARNOLD. CAPT. CRANE. CAPT. HOLLOMAN. MR. STOUT.
14637

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WASHINGTON

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VOL. XXI AIR CORPS NEWS LETTER NO. 21.

Information Division
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November 1, 1938

Munitions Building
Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard and others connected with aviation.

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NAVIGATION OF THE HOWARD HUGHES AROUND THE WORLD FLIGHT

By Lieut. Thomas L. Thurlow, Air Corps

The navigation for the Howard Hughes Around the World Flight was performed by Harry P.M. Connor, Lieutenant, U.S. Navy Reserve, and Thomas L. Thurlow, First Lieutenant, Air Corps. The instruments carried and used during the flight were as follows:

Drift Meter: The meter was of the optical, bent tube type, with trail sighting feature. The instrument was of unit power with an erect image and 20 degree real field. The line of sight was rotatable from 10 degrees forward of the vertical to 65 degrees aft by means of a prism rotated by a push-pull cable. The reticule was fixed, and was edge illuminated for night work. Drift was measured by rotating the instrument about the axis of the vertical tube which passed vertically down through the fuselage forward of the navigator's table. The exit pupil was 10 m.m. in diameter and the eye distance 1 and $\frac{3}{4}$ inches. The instrument was designed for the particular installation by Lieut. Thurlow and built by the Vard Mechanical Laboratory and Penn Optical Co., both of Pasadena, Calif.

Remote Directional Control: A controller for the directional unit of the automatic pilot was mounted in a convenient location in the navigator's compartment. Incorporated in the controller was a mechanism to allow for the backlash of the flexible cable connecting the controller with the automatic pilot. The backlash mechanism plus a dial indicator permitted the navigator to turn the airplane the exact amount desired. This controller is being supplied to the Air Corps by the Sperry Gyroscope Co., Brooklyn, N.Y.

Aperiodic Compass: A Pioneer aperiodic compass, similar to the Air Corps Type D-10, was mounted in an accessible position to the right of the navigator's seat.

Vertical Face Compass: An experimental Kollsman vertical face aperiodic compass was mounted at eye level near the rear edge of the navigator's table.

Pelorus: An optical pelorus, similar in principle to the Air Corps Type A-2, was carried. This instrument was built by the Vard Mechanical Laboratory, Pasadena, Calif.

Sextant: The sextant used was a standard Bausch and Lomb bubble sextant, similar to the Air Corps Type A-6.

Chronometers: A pair of Longines chronometer watches set to GCT and GST were used as standard timepieces. Longines hack watches were worn for observing.

Dead reckoning computer: A Dalton Model G Dead Reckoning Computer, manufactured by Keuffel and Esser Co., was used for the solution of graphical dead reckoning problems. This instrument is identical with the Air Corps Type E-6.

Line of Position Computer: A mechanical computer for reducing celestial observations, the computer incorporating certain Nautical Almanac data.

Miscellaneous Computers: Several speed-time-distance, airspeed, and altitude correction computers were carried, these being identical with Air Corps Types E-1 and D-3.

Miscellaneous Devices and Tables: Airspeed calibration and compass deviation cards were located in clearly visible positions. The Hydrographic Office publications carried were Ageton, Dreisonstok, Red and Blue Azimuth Tables, Useful Tables, and Radio Aids to Navigation. Necessary plotting equipment and several Air Corps navigation tables in common use were carried by the individual navigators.

Maps and Charts: Two complete sets of maps, charts, and plotting sheets for the entire route, including alternate and emergency stops, were stowed convenient to the navigator's seat.

Drift Signals: Twenty drift signals were carried, these being identical with the Air Corps Type X-1C.

A hatch with a demountable windshield was provided for celestial observations. In addition, the glass in two windows near the rear of the fuselage was replaced with a superior grade to enable reliable observations to be made through them. Mounting brackets for the pelorus were placed by each of these windows.

Prior to the flight it was decided that the navigators would stand four-hour shifts, these to be reduced one half if deemed advisable near the finish

of the flight (the reduction was not made). The navigator on duty was to be held completely responsible for the navigation during his watch.

The navigation during the flight was unique only in that celestial navigation was used to a much greater and radio navigation to a much lesser extent than on usual flights of this nature. The celestial navigation was unique in that weather conditions made necessary the use of the moon in approximately 60 percent of the observations taken.

Of the total flight time, approximately 10 percent was made in instrument conditions, 60 percent over an overcast, and 30 percent contact. Since the maps for the greater part of the flight were of extremely small scale and sometimes sketchy over large areas, little use could be made of pilotage during the 30 percent of the time that weather conditions permitted. Frequently, during periods when pilotage normally would have been possible, the maps were put away and plotting sheets were used in their place.

The flight was made near full moon (sun and moon opposite) and in high latitudes (extremely long days). Consequently, it was seldom that more than a single celestial line of position could be obtained. Due to the weather encountered, no running fixes using a single body could be made. Every effort was made to discover rivers, coast lines, mountain ranges and other prominent surface details which previous position lines could be made to cross for a fix. Numerous fixes of this nature were made.

After several hours of instrument conditions over the Atlantic, two radio fixes were attempted, using loop bearings on 6 surface craft from 300 to 500 miles distant. These were decidedly unsatisfactory, one fix resulting in a very large triangle with center of gravity 60 miles south of the course and the second in a smaller triangle with center 40 miles north of the course. Following these fixes, a sun observation was immediately taken and the line laid down. A twilight star line was brought forward to cross it, the resulting fix being 15 miles south of the course. A later sun sight, with the sun at right angles to the course, verified the fix as to distance off course. A landfall (Ireland) was made within five miles of the point indicated by the above fix and the subsequent dead reckoning. The above were the only radio fixes attempted during the flight.

As soon as it was possible to do so when approaching a destination, a radio bearing was taken on the station at that point as a check upon the other navigation. Since in all cases the above bearings were within 5 degrees of the nose, the bearing was disregarded and the dead reckoning and celestial navigation were assumed correct. The assumption was justified in all cases.

Exclusive of take-offs and landings and short period before reaching Paris when it was necessary to dodge some extremely low skud, the automatic pilot was in continuous operation, thus permitting the navigator, by using the remote control, to exercise complete directional control over the airplane and free the pilot for calculations involving fuel consumption, power, and balance. The opinion of the crew was unanimous that such an arrangement is essential in extremely long range flights.

Exclusive of a few short periods, the altitude maintained was from ten to sixteen thousand feet. The navigator not on duty relieved other members of the crew so that each member was able to sleep about three hours per day. The effect of altitude and lack of sufficient sleep was exhausting, making a mechanical computer for the reduction of celestial observations highly desirable. This was borne out during the Fairbanks-Minneapolis leg. It became necessary on this leg to check the compass several times by sun bearings, the sun's azimuth being determined from the Red Book. The computations required triple the time normally required, due to simple mistakes even though the observer took oxygen several minutes before making and reducing the observations.

No trouble was experienced in measuring drift over water during daylight hours. Overcast conditions at night allowed the use of only three drift signals, from each of which a satisfactory drift was measured.

Due to generally smooth air and the extreme stability of the airplane on the automatic pilot, after the first few observations the number of sights used for an average was reduced to five. As nearly as can be ascertained, all observations yielded lines well within 10 miles of true. On several occasions an average of only three observations was used. It is believed that these observations also fell within the above maximum limit.

Every reasonable means for determining wind information for the dead reckoning was employed. The Air Corps Type E-6 Dead Reckoning Computer was used for the solution of dead reckoning problems, both in determining and applying the wind. The extreme versatility and compactness of this computer made it a valuable accessory for the purpose used.

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Colonel George H. Brett, Air Corps, has been detailed as a member of the General Staff Corps and assigned to the General Staff with troops and as Chief of Staff of the General Headquarters Air Force, Langley Field, Va.

THE 1937 AWARD OF THE MACKAY TROPHY

In one of the many shields on the silver-covered base on which is mounted the Mackay Trophy, another inscription was recently added, and it reads as follows:

1937
Captain Carl J. Crane, Air Corps
Captain George V. Holloman, Air Corps

For development and demonstration of the original automatic landing device for aircraft.

On Friday morning, October 14, 1938, the office of the Hon. Harry H. Woodring, Secretary of War, in the State Building, was the scene of the presentation by him to two Air Corps officers, Captains Crane and Holloman, of gold medals emblematic of the Mackay Trophy which bear the inscription given above.

This automatic landing system was designed by Captain Crane, Director of the Instrument and Navigation Laboratory at Wright Field, Dayton, Ohio, and, working with Captain Holloman, he conducted practically all of the flight tests which brought to a successful conclusion the automatic landing system. The various units of automatic control were designed by these officers, Mr. Raymond K. Stout, project engineer at the Air Corps Materiel Division, Wright Field, Ohio, and Mr. C.D. Barbulesco, of the Signal Corps Aircraft Radio Laboratory, which laboratory assisted materially in the design and construction of various units entering into the automatic landing system.

In presenting the Mackay Trophy to Captains Crane and Holloman, Mr. Woodring stated:

"Twenty-six years ago the first award of the Mackay Trophy was made to the then Infantryman and now Chief of the Army airmen, Major General Henry H. Arnold. The occasion was - for those days of aerial pioneering - a momentous and monumental reconnaissance flight from College Park in Maryland, via what is now the Army War College, to Fort Myer in Virginia and return. General Arnold successfully accomplished his flight of 41 minutes in a ship powered with a 40-horsepower engine.

Since 1912, the National Aeronautic Association and its predecessor, the Aero Club of America, have awarded the Trophy for long distance flights, altitude flights, non-stop transcontinental flights, Pan-American, California-Hawaii, Washington-Alaska and Around the World flights, mid-winter flights and photographic flight - all record-breaking achievements in their time. The award has also been bestowed for speed records attained in peace and for gallant service on the aerial front in war.

Today, somewhat of a new note is struck. The Mackay Trophy goes to Captains Crane and Holloman for the development of the original automatic landing device for aircraft. Not only did they develop this control system, but they conducted the many and tedious test flights which demonstrated the practicability of the automatic landing system. Their achievement may not have been as spectacular as any of the feats for which the Trophy heretofore has been awarded, but the successful accomplishment of their experiments promises as much for the advancement of aviation - commercial as well as military - as did the army's aerial exploits of the years gone by. Assurance of the maximum safety in aerial travel is the goal towards which all airmen continuously strive. These two Captains of the Air Corps have achieved much towards the attainment of that goal. A history-making stride has been taken towards the elimination of the possibility of human error in the landing of aircraft under adverse weather conditions.

We all regret that illness prevents Mr. Mackay from being with us today. We are happy to have with us, however, Mr. Horner, Chairman of the National Aeronautic Association, who is custodian of the Trophy donated by Mr. Mackay in 1912 for award to the officer or officers of the Army making the most meritorious flight of the year. It is also our pleasure to greet on this occasion Mr. Raymond Stout, from the Air Corps Materiel Division at Wright Field, the very able engineer whose cooperation with Captains Crane and Holloman so materially advanced the project to a successful conclusion.

In presenting this gold medal emblematic of the Trophy, I express to Captain Crane and to Captain Holloman my personal admiration, and I extend to them the sincere congratulations of all their comrades in the Army of the United States."

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NEW OBSERVATION PLANE FOR COLORADO N.G.

The 120th Observation Squadron, 45th Division, Colorado National Guard, received its first new O-47A Observation plane on October 22nd, when Captain John K. Nissley, Regular Army Instructor for the 120th, flew it from the North American plant in Los Angeles, with Lieut. James B. Morris as his observer.

This latest type plane exceeded the Squadron's fondest hope, attaining a remarkable speed on the trip from the West Coast. Captain Nissley reported that the plane handled perfectly. It is the first of six which will eventually be delivered to the 120th Squadron.

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Major Earl H. DeFord, Air Corps, has been relieved from duty on the staff and faculty of the Air Corps Tactical School and assigned to Hamilton Field, Calif.

ECHOES FROM THE FORT BRAGG MANEUVERS

The truck convoy of the Headquarters and Headquarters Squadron, 8th Pursuit Group, Langley Field, Va., left that station at 5:00 a.m., September 29th, and arrived at Fort Bragg, N.C., at 4:00 p.m., for participation in the Joint Antiaircraft-Air Corps Field Exercises.

The air echelon, scheduled to leave Langley Field on the same date, transporting a number of officers and enlisted men to Fort Bragg, was forced to remain there until the morning of October 1st, due to unfavorable weather conditions. After raining almost steadily for the first two days, the weather became very favorable, and operations went on steadily and uneventfully.

A 45-minute "Black-out" between the hours of 7:00 and 10:00 p.m., on October 13th, presented a very impressive, war-like scene, creating wide interest among the residents of this section, who co-operated nicely during the "Black-out."

The largest concentration of troops ever held on the east coast has been very successful and, fortunately, it was carried out with no casualties to mention, and now that the conclusion of the "war" is drawing near all units will soon be making preparations for returning to their home stations.

The 33rd Pursuit Squadron, 8th Pursuit Group, Langley Field, Va., went "up front" in the recent Anti-aircraft - Air Corps Joint Maneuvers, operating out of "defense" airdrome at Maxton, N.C., with 18 PB-2's. The boys got the feel of some realistic Pursuiting in the patrols and intercepting of "enemy" aircraft. The pilots figure that tactically this was one of the best wars they have participated in for a long time, and that it served to bring out much valuable information of great interest to all Air Corps personnel. Needless to add, getting home to Langley Field was the best part of the maneuver, since tents at night, even in the Sunny South, are cold affairs.

Encamped at Knollwood Airport, Southern Pines, N.C., during the Fort Bragg Maneuvers, the 36th Pursuit Squadron, 8th Pursuit Group, Langley Field, Va., were guests of a most delightful southern hospitality. They had a very convenient set-up for the maneuver exercises with anti-aircraft. Aside from the chilly nights and early morning alert periods, everything was quite pleasant. According to the scribe of the 36th, the most appealing factor was the accessibility of some of the best golf courses of the country, located at Southern Pines and Pinehurst. He added, however, that two weeks proved to be long enough to live in tents and that the personnel were not at all averse to returning to their home station.

With a heavy coat of tan, and in the pink of condition, the 27th Pursuit Squadron, 1st Pursuit Group, returned to Selfridge Field, Mt. Clemens, Mich., from Fort Bragg, N.C., where they participated in the Anti-aircraft Exercises held at that station. Approximately 150 enlisted men were brought back in 15 B-18 Bombers. Part of them returned in the evening, and the remainder the following morning. All of the pilots, flying P-35 Pursuit planes, returned a few days earlier.

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NEW HANGAR AT ALBROOK FIELD

Construction work on a new hangar on the flying line at Albrook Field, Panama Canal Zone, continues, with the steel work nearly complete. The hangar will be occupied by the 24th and 29th Pursuit Squadrons, while the 44th Reconnaissance Squadron will take over the hangar which the two Pursuit squadrons are now using. Changes in plans for the concrete runways which are to be laid have delayed that project, and construction has not yet begun.

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RANDOLPH FIELD MEN CATCH UP IN TRAINING

With as many as fifty airplanes on extended navigation flights on a single day, Randolph Field personnel were taking advantage of the lull between classes to comply with their War Department training directive. The Post Operations Office estimated that airplanes from Randolph Field flew approximately 250,000 miles - equal to ten round-the-world trips - without a forced landing or accident, and all this during a period of three weeks, the interval between student training classes.

"This record," says the News Letter Correspondent, "is particularly enviable when it is realized that these BT-9's were used daily on the final stages of the last class, and during the last few weeks of training built up an average of almost 100 hours per plane per month.

"During the past thirty days, ending on October 15th, a total of 260 clearances was issued by Post Operations, the ultimate destination of the planes being almost every State in the Union. A-17 airplanes led the list of visiting ships during the month, 16 of them dropping into the "West Point of the Air." Close on the heels of the A-17's came the B-18's, 13 of them visiting the station during the month. A total of 20 types were cleared through Post Operations, including 4 B-17's."

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Lieut. Colonel David A. Myers, Medical Corps, has been relieved from duty in the Office of the Chief of the Air Corps and assigned to duty at Moffet Field, Ca

PRIMARY FLYING SCHOOL FLYING TIME STATISTICS
By the Randolph Field Correspondent

Airplanes assigned to Randolph Field, Texas, the "West Point of the Air," flew a total distance of more than 90 times around the world at the equator during the single month of September, the total mileage being 2,251,628. These figures are based on the recognized cruising speeds of the various types of planes at the station and are indicative of the tremendous amount of student training which is handled at the Air Corps Primary Flying School. To put it in other words, every night when the last hangar door is closed, Randolph Field airplanes have made three "round the world" flights since the ships were rolled out that morning.

With the two largest classes ever to be in training at the station during the last three months ending September 30,an even more remarkable record has been established. A total of 42,359 hours and 20 minutes time in the air was completed with only one fatality - Flying Cadet A.B. Stubbs, who was fatally injured when another plane crashed into his own while on the ground at one of the outlying airdromes. Only one other student flier among the 545 who were in training required any hospital attention during this period. A flying cadet was treated for a bruised right arm, received in a minor accident a few weeks ago.

During the month of September, 17,373:05 flying hours were amassed, and this sets a record for a single month at Randolph Field and is believed to be the greatest number of hours flown at any U.S. Army Air Corps station during a similar period of time. The figure for the month of September surpasses by almost 900 hours the former record of Randolph Field, established in August of this year, when 16,504:05 hours were flown.

These 17,373 airplane hours were divided between the Primary and Basic type airplanes, as follows: Primary -6,964:40 hours for an estimated mileage of 731,290 miles at about 105 miles per hour; Basic airplanes - 10,358:25 hours for an estimated mileage of 1,512,338 miles at about 146 miles per hour. Finally, two Bombardment type airplanes assigned to the station flew 49:55 hours, or about 8,000 miles, all for a grand total of 2,251,628 miles during a single month.

The number of airplanes in commission at Ramdolph Field varies somewhat from day to day, but a conservative estimate reveals that about 300 planes are available for student training, 185 of these being Primary training types and 115 Basic trainers.

The 46th School Squadron, which maintains a portion of the Basic trainers, had 16 airplanes which flew more than 100 hours during the month, the highest figure for any single airplane in that squadron being 133 hours and 20 minutes.

The 52nd School Squadron, which maintains the remainder of the Basic training airplanes, turned out 19 airplanes which flew over 100 hours, the highest figure for an individual ship being 126:55 hours.

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KELLY PURSUIT PLANE UNDER RIFLE FIRE

The Crew-Chief mechanic of a P-12E airplane assigned to the Pursuit Section of the Air Corps Advanced Flying School at Kelly Field, Texas, got the surprise of his life when making his routine mechanical inspection of the airplane upon its landing from its first morning mission on Thursday, October 20th. He found a bullet hole in one of the ailerons, apparently made by someone taking a pot shot at the airplane while it was in flight. It has been determined that the damage done to the control surface was caused by high power rifle fire.

The pilot of the plane on the mission, who miraculously escaped injury and possibly death from the rifle fire - Flying Cadet John Bailey Henry, Jr., 22, of Charlotte, Texas, a student of the Pursuit Section - was unaware that he had been fired upon, and when the bullet hole was pointed out to him he undoubtedly got a bigger thrill than his mechanic, Sergeant Mason H. Minnix, 61st School Squadron, who first discovered it.

Cadet Henry had been engaged in a routine training flight in the general vicinity of the area northwest of Kelly Field, and field officials are of the opinion that his plane was fired upon in that locality. It was further pointed out that the person firing the shot thoughtlessly did so, assuming that the plane couldn't be hit and not realizing that the life of the pilot as well as thoseof civilians on the ground were endangered. Had the pilot been hit by the rifle fire, or even if the bullet had penetrated a more vital part of the airplane it might have gone out of control and crashed to the ground, with possibly fatal results to both the pilot and others, as well as great damage to government and private property.

It is believed that the plane was hit some time between 8:30 and 9:30 a.m.

Cadet Henry is the son of Mr. and Mrs. John Bailey Henry, Sr., of Charlotte, Texas.

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Captain Oscar L. Rogers, Air Corps, was promoted to the grade of Major (temporary), effective October 8, 1938.

NEW WING COMMANDER ARRIVES IN PANAMA

Shortly after noon on October 14th, the 16th Pursuit Group, which is based at Albrook Field, passed in aerial review above the Transport ST. MIHIEL as it approached its dock at Balboa, welcoming Brigadier General and Mrs. Herbert A. Dargue to their new station in the Canal Zone.

General Dargue is the newly appointed Commanding General of the 19th Wing, succeeding Brigadier General George H.Brett. On the following evening, at the Union Club in Panama City, a reception was held in honor of General and Mrs. Dargue, which was attended by the officers and ladies of Albrook Field.

The 19th Wing welcomes its new Commander and wishes for him a happy and successful tour of duty.

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RECORD FLYING TIME FOR GRADUATING CLASS

According to the Kelly Field Correspondent, Class 38-C, which graduated from the Air Corps Training Center on October 5, 1938, is believed to have established quite an enviable record in flying and maintenance.

During the period from July 5 to October 5, 1938, a total of 26,781 aircraft hours was flown by airplanes at Kelly Field. The average hours flown per student was 111:43. The average number of airplanes on hand daily was 152, or a daily average in commission of 75.5%. The average number of hours flown per airplane in commission during the period was 179:35.

The 61st School Squadron, commanded by Captain Elmer T. Rundquist, Air Corps, led the Air Corps Advanced Flying School organizations in maintenance. During the three-month period, that organization maintained a daily average of 89% of their airplanes in commission. Considering the fact that these airplanes are obsolete, this record speaks well for the efficiency of this Squadron.

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LECTURES FOR PHILIPPINE ARMY OFFICERS

Twenty-six Philippine Army officers from different stations throughout the Philippine Archipelago, who are now attending the Philippine Army Supply School in Manila, visited Nichols Field during September for the purpose of receiving practical and theoretical instruction in the U.S. Army Air Corps Supply System.

The officers were escorted about the hangars and the several activities of the station to afford them first-hand information as to the daily function of the 4th Composite Group, after which illustrated talks were delivered on the following subjects:

"Kits and Sets in Maintenance of A.C. Equipment," by 1st Lieut. Tom W. Scott, Air Corps.

"A.C. Shops in Manufacture and Maintenance of Air Corps Supplies," by Captain F.A. Bacher, Air Corps.

"Procurement, Preservation and Storage of Air Corps Supplies," by Mr. G.D. Cline, Philippine Air Depot.

"Storage and Maintenance of Photographic Supplies," by Tech. Sgt. George H. Fisher.

"Supply Procedure in the Air Corps Squadron," by Sergeant Clayton Hall.

"Movements of Supplies and their interruption by Airplanes," by Major Charles Backes, Air Corps.

"Emergency Landing Field Requirements" by Captain Alden R. Crawford, Air Corps.

"Airplanes for Supply Distribution," by 1st Lieut. F.E. Calhoun, Air Corps.

Upon the completion of the lectures, an examination was held on September 23rd.

First Lieut. Frederick E. Calhoun, who is Property and Supply Officer of the Air Depot, coordinated the instruction in connection with the visit of the Philippine Army officers.

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PAN-AMERICAN CO-PILOT FLIES AT NICHOLS

As a recent article in a Manila newspaper put it, "Clipper Pilot Takes a Busman's Holiday," so does it appear when some young man reports at Headquarters, Nichols Field, P.I., and requests that he be permitted to put in a little time in an Army plane. As a great number of the Pan-American co-pilots are also members of the Air Corps Reserve, they are accordingly permitted to pilot Army aircraft. Such was the case when Clifton George, navigating officer of Clipper planes, recently put in some time while awaiting the departure of the China Clipper on a trip to China.

Asked to comment on his experiences back and forth over the "Blue," he would only say "It's a lot of water we fly over." And all the Nichols Field Correspondent can say is - "That Uncle Sam is putting out some mighty fine products from the West Point of the Air," and when one of the boys steps into Headquarters while on scheduled flights to the Orient it seems as though the United States mainland is "only over the hill" instead of seven thousand miles distant.

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A group of about 116 student officers of the Air Corps Primary Flying School, Randolph Field, Texas, in charge of Major W.H. Reid, Engineering Officer of that station, made tours of inspection through the Engineering and Depot Supply Departments of the San Antonio Air Depot, Duncan Field, Texas, September 27th to 29th, inclusive.

AERIAL GUNNERY TRAINING OF AIR CORPS PERSONNEL

Flight "B" of the 16th Observation Squadron recently completed the initial period of aerial gunnery training for the current fiscal year. Moving by air and motor convoy, 8 officers and 20 enlisted men of this unit, with two attached officers from the 1st Battalion of the 83rd Field Artillery, Fort Benning, Ga., and one attached medical attendant, arrived at Eglin Field, Valparaiso, Fla., on September 10th and 11th, 1938, for a two-weeks' period of training, beginning on Monday, September 12th.

Following the example of the Flight "B" personnel, the attached officers took along their fishing and swimming equipment, but proved to be better range officers and convoy officers than fishermen, in which latter capacity they were about down to par with Flight "B" officers.

Left at home in command was 1st Lieut. James Van G. Wilson, newly assigned to the Flight from the Autogiro School, with one autogiro, one BT-2B-1 and 25 enlisted men. First Lieut. Frank P. Hunter, Jr., also newly assigned from the Autogiro School, was on leave. The following officers made the trip:

Captains Reuben Kyle, Jr., W.H.Tunner, 1st Lieut. T.D. Ferguson, Air Corps; 2nd Lieuts. W.W. Amorous, T.M. Bartley, Jr., P.W. Tibbets, M.S. Zipp, B.B. Taylor, Air Reserve; 1st Lieut. D.E. Means, Field Artillery, and 2nd Lieut. G. McCutcheon, Field Artillery Reserve, both from the 1st Battery, 83rd Field Artillery, Fort Benning, Ga.

For firing, three O-46A airplanes were used, two of which were loaned to Flight "B" by the Commanding Officer of Maxwell Field, Ala., to whom thanks are due for such valuable cooperation and assistance.

The firing was conducted with a freedom from jams and malfunctionings, which reflected favorably on the efficiency of the armament personnel. A total of 8,000 rounds was expended, with gratifying results shown on the score card. High score was made by 2nd Lieut. Paul W. Tibbets, Air Reserve, who, firing with a wing gun, scored 50 hits out of 50 rounds on Phase 2-500, and 46 hits out of 50 rounds on Phase 1-500 while engaged in record firing, for a total score of 414 points out of a possible 500. The News Netter Correspondent believes that this may constitute a record for total rounds placed in a target with a wing gun.

A portable SCR-192 radio set was taken along and set up in the operations tent, from which point two-way voice radio communication with pilots in the air was maintained. Communication with the range was via field telephone. This system of communication has been tested by Flight "B" during previous gunnery periods at Eglin Field, and has been satisfactory as an additional safety measure and a very valuable convenience in many different ways.

All firing was completed during the morning hours. Afternoon activities consisted principally of fishing and swimming. Some very fine fish were almost caught but, of course, the big ones got away. Surf swimming and sun bathing were excellent at Tower Beach, at which place the majority of the Flight could be found during the afternoons, with manly muscles, sunburned backs and newly cultivated moustaches on display. One entire day was devoted to deep sea fishing by the enlisted personnel of the Flight, and this time some of the big ones did not get away.

At the end of the first week, the attached officers were replaced by 2nd Lieuts. B.M. Barksdale, Field Artillery, and J.P. Hines, Field Artillery Reserve, who functioned as range officers during the second week and as convoy officers on the return trip.

At the beginning of the second week, a very unwelcome mass of Polar Continental Air arrived non-stop from the North Pole. Record firing had to be discontinued for two days, due to very rough air, and Tower Beach was the most deserted spot in West Florida. This interval was utilized in making practice instrument flights on the Mobile beam.

With the return of smooth air, record firing was resumed, and the training period was successfully completed. However, it was still cold at 4:15 a.m., and the beach was still bleak and barren. Although Lieuts. Tibbets, Zipp, Taylor, Barksdale and Hines made a final sally and brought in some nice snappers and groupers, also a pair of non-edible bonitos, for photographic purposes, still everyone agreed by the end of the week that it was time to call it a season. On Friday and Saturday, September 23rd and 24th, the air and ground echelons returned to Lawson Field.

The Third Pursuit Squadron, stationed at Nichols Field, Rizal, P.I., has been industriously pursuing considerable practice in aerial gunnery. Fortunate in having a former National Match contender, who is also a Chanute graduate, 1st Lieut. Robert O. Brownfield, we started off by a little analysis and discussion of the basis of Pursuit operations - the ability to shoot. This was followed by explanation of gun and sight positions, particularly in a P-26 synchronization, trajectories, harmonization, and bore sighting. All Technical School data was culled, also the excellent articles of the late Lieut. Norman H. Ives, in our search for enlightenment. Ground target firing convinced us of the benefits of our preliminary efforts. Even in bumpy weather and in cross wind firing all personnel

showed marked improvement. Following the ground practice, we began on sleeve targets. This phase of firing produced many experiments in method of approach, speed and point of aim. Strict avoidance of any plain or fancy methods of fouling to obtain hits has been the rule. In spite of early disappointment, it was felt that there must be a speed of approach and a point of aim that would obtain hits.

Success is gradually beginning to crown our efforts, and from scores of one to six hits out of 100 rounds we have crept up to an average of around 15, with a high score of 55 hits.

The one difficulty we have been unable to surmount is the ability of a properly harmonized machine gun to fire where it is pointed, hence all this effort to develop the aiming device, the Class 13 Non Standard Peashooter, Type X-1 (Experimental).

The 29th Pursuit Squadron, based at Albrook Field, Panama Canal Zone, encamped at Rio Hato, Republic of Panama, beginning on October 3rd, for two weeks of gunnery and field maneuvers. Upon their return to Albrook Field, the 24th Pursuit Squadron was scheduled to take over the gunnery camp for a similar period of time.

The 74th Attack Squadron completed their gunnery on September 27th and reported a successful season. One phase of the 74th's program consisted of a demonstration of an attack on an anti-aircraft battery by a flight of A-17's. Every weapon available to an attack ship was used against the target, a mock-up of log guns and silhouettes. The battery was screened in smoke by a single ship and attacked with machine gun fire, chemicals and bombs by the flight in elements of three. The gun position was completely wiped out, one bomb scoring a direct hit upon a log gun and smashing it.

The 29th Pursuit Squadron returned from the gunnery camp at Rio Hato, Republic of Panama, on October 17th, and reported a successful season. With the restrictions placed on dive bombing with Pursuit aircraft, bombing for record became a more intricate and difficult affair than heretofore, there being a little matter of not being able to see the target. With a little practice, however, the 29th seems to have done quite well. The 24th Pursuit Squadron took over the camp on October 17th for two weeks of gunnery.

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During the month of September, the Engineering Department of the San Antonio Air Depot, Duncan Field, Texas, overhauled a total of 10 airplanes and 99 engines and repaired 96 planes and 14 engines.

NEW CLASS STARTS TRAINING AT RANDOLPH

Class No. 39-C, the twenty-second to enter the Primary Flying School at Randolph Field, Texas, started training on the Primary Stage on October 21st, with 107 student officers - graduates of the June, 1938, Class of the U.S. Military Academy, West Point, N.Y., seven other officers from line branches; five National Guard officers, and 229 Flying Cadets, for a grand total of 348 students.

Although the 229 cadets reported to the line, several of them had not been cleared for flying by the School of Aviation Medicine. In addition to the 348 starting out on PT-13's, a total of 189 potential pilots began to learn the art of flying the BT-9's on the Basic Stage. These include 7 officers of the Regular Army, 2 foreign officers, 178 flying cadets, and 2 cadets from the Philippine Army.

"A" Stage now boasts of eight flights, with a total of 63 instructors on duty and several more in the process of going through the Instructors' School. In addition to the 63 instructors, each flight is commanded by a Flight Commander. Captain James W. Andrew was named Stage Commander, replacing Major John R. Glascock, who was transferred to Chanute Field, Rantoul, Ill. Captains Charles A. Harrington and Emmett F. Yost are Assistant Stage Commanders. The Basic Stage is commanded by Captain Bernard A. Bridget, with Captain Roger M. Ramey as assistant.

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COMMERCIAL PILOTS TRAIN ON PT-13'S

Twenty-two Reserve officers, non-graduates of the Air Corps Training Center, reported at Randolph Field for a special refresher course which, if completed, will enable them to go on extended active duty with tactical organizations. These Refreshers are all commercial pilots, the average flying time of the twenty-two being 1410 hours prior to reporting at the Training Center. Many of them have considerable experience on BT-9's which they received at Reserve bases.

Approximately 50 hours per day are being flown by the students, and eight instructors are assigned to this special flight. The News Letter Correspondent expressed the hope that the majority of these student pilots would be qualified for transfer to the Basic Stage before the regular class started on October 21st. The present schedule calls for about ten days' training on the Primary Stage, advancement to the Basic Stage being made on a proficiency basis.

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NEW CLASS REPORTS AT ADVANCED FLYING SCHOOL

Class No. 39-A reported at Kelly Field, Texas, on October 8th, to complete its instruction at the Air Corps Training Center. This class, the largest yet to be sent to the Advanced Flying School, consists of 176 students, four of whom are Regular Army officers, six National Guard officers, and the remaining 166 are flying cadets. Of this number, 46 have been assigned to the Attack Section, 40 to Bombardment, 24 to Observation and 66 to Pursuit for specialized training.

Of the 36 States, including the District of Columbia, having members in this class, Texas (with 27 students) again has the largest representation. Following in close succession are Illinois with 13, Ohio, 11; California and West Virginia, 10 each; Oklahoma, 9; New York and Pennsylvania, 8 each; Kansas, 7; Arkansas and Iowa, 6 each; Kentucky and Virginia, 5 each; Georgia, Michigan, Mississippi and Nebraska, 4 each; Alabama, Louisiana, Massachusetts and Minnesota, 3 each; Florida, New Mexico, North Dakota, Tennessee and Wisconsin, 2 each; and Arizona, District of Columbia, Indiana, Maine, Montana, New Jersey, North Carolina, South Carolina and South Dakota, one each.

Twenty-four of the flying cadets in this class already hold Reserve commissions in branches of the Army other than the Air Corps, but will vacate these upon the completion of the course of instruction to accept, with the other graduates, commissions in the Air Corps Reserve.

The following statistics may be of interest: Five sons of Army officers are members of the Class, namely: Flying Cadet John H. de Russy, son of Major Rene E. de Russy, Q.M.C.; Flying Cadet Clarence L. Tinker, Jr., son of Colonel Clarence L. Tinker, Air Corps; Flying Cadet Paul M. Brewer, Jr., son of Captain Paul M. Brewer, Infantry Reserve; Flying Cadet Woodrow B. Wilmot, son of Major C.M. Wilmot, Medical Reserve; and Flying Cadet Harold C. Smelder, son of 1st Lieut. Laurence B. Smelser, Infantry Reserve.

Although the range of ages of the flying cadets includes the minimum and maximum limits for eligibility, it has been found that the average age of cadets in this class is 23 years and 8 months. Extremes in height vary from 5 ft. 4 in. to 6 ft. 3 in.

The actual flying training commenced on October 17th.

The roster of the class follows:

REGULAR ARMY OFFICERS

Nall, Eugene *	Cav.	Atmore, Ala.
Kelly, Colin P.,Jr. **	Inf.	Madison, Fla.
Broadhurst, Edwin B.**	F.A.	Smithfield, N.C.
Sebastian, Henry A.*	Inf.	Gainesville, Tex.

* 1st Lieut.; ** 2nd Lieut.

All these officers specialize in Bombardment

NATIONAL GUARD OFFICERS - 2ND LIEUTENANTS

Railsback, John Benjamin	Moline, Ill.
Hughey, Robert Jerome	University City, Mo.
Huston, Vincent George	Philadelphia, Pa.
Dunning, John Affleck	San Antonio, Texas
Cantrell, Raymond Lee	Spokane, Wash.
Jones, Robert Lee	Spokane, Wash.

All of these officers are specializing in Observation Aviation and are members of Air Corps National Guard units of the States as hereinafter indicated, viz: Lieuts. Huston and Railsback, Pennsylvania; Dunning and Hughey, Missouri; Cantrell and Jones, Washington.

FLYING CADETS

Ellison, Holden Fowler	A	Altoona, Ala.
Yarbrough, Eugene Terry	A	Guntersville, Ala.
Gray, Leon Welton	P	Tucson, Ariz.
Breckenridge, John P.	A	Paragould, Ark.
Chaffin, Harold Newt	B	Fort Smith, Ark.
Fletcher, Thomas, Jr.	O	Scott, Ark.
Galusha, Harry Leslie	A	Little Rock, Ark.
Sheffield, Charles Paul	B	Mt. Ida, Ark.
Terry, David Dickson,Jr.	A	Little Rock, Ark.
Edwards, Albert B.,Jr.	O	Berkeley, Calif.
Ford, Ernest Gordon	B	Pacific Beach, Calif.
Gilmore, Jean Dowell	A	Anderson, Calif.
Hall, Byron Eugene	A	Campbell, Calif.
Lanford, Wm. Archibald	A	Wood Lake, Calif.
McCauley, Clarence V.	B	Armona, Calif.
Oliver, Ralph Lorimer	A	Palo Alto, Calif.
Parker, Kingsbury E.,Jr.	P	San Francisco,Cal.
Smith, Weldon Halliwell	A	Berkeley, Calif.
Wilson, Harold Fred'k	B	Los Angeles, Calif.
deRussy, John Huie	A	Washington, D.C.
Manson, Hugh Boyd,Jr.	B	Jacksonville, Fla.
Babb, Harold Thaddeus	O	Dalton, Ga.
Carmack, John Edgar	A	Decatur, Ga.
Holbrook, Thomas Harber	O	Commerce, Ga.
Turner, Sullins Preston	P	Atlanta, Ga.
Allen, Frank	A	Chicago, Ill.
Cellini, Oliver George	P	Chicago, Ill.
Jarek, Frank William	O	Chicago, Ill.
Schwind, Burton Eugene	P	Chicago, Ill.
Setchell, James Fred'k	O	Chicago, Ill.
Swanson, William Howard	P	Chicago, Ill.
Petry, Robert Gregory	A	Champaign, Ill.
Waller, William III	P	Chicago, Ill.
Wilmot, Woodrow Burton	P	Dunlap, Ill.
Holt, Harry Joseph	A	Great Lakes, Ill.
Wiltjer, Clarence P.	O	Watseka, Ill.
Peffer, David McNair	B	W. Lafayette, Ind.
Beightol, Willis Eugege	P	Webster City, Iowa
Holsteen, Theodore F.	B	Burlington, Iowa
Lewis, Dwight Francis	A	Corning, Iowa
Neely, Clarence Arthur	B	Ames, Iowa
Price, Bruce Burns	B	Sac City, Iowa
Van der Zee, John Jacob	P	Iowa City, Iowa
Berry, James Dean	B	Gridley, Kans.
Coyle, Lawrence Wm.	A	Coffeyville, Kans.
Humfeld, Harold Emmett	O	Anthony, Kans.
Mayden, James Daniel	P	Junction City,Kans.
Thornbrough, George W.	A	Lakin, Kans.
McNay, Joe Kenneth	P	Louisville, Kans.
Moore, Paul L.G.	P	Wichita, Kans.
Crouch, Robert Edward	B	Mt. Washington, Ky.
Fields, James Robert	P	Danville, Ky.
Hooks, Ferrell Duglas	B	Lamasco, Ky.

Howard, James Alva	P	Bowling Green, Ky.
Wright, Adolf Milton	O	Louisville, Ky.
Barrow, Leonard J.,Jr.	A	New Iberia, La.
Hardy, Otha B., Jr.	P	New Iberia, La.
Stansbury, Wm. G.	B	Iota, La.
Bourgoin, Raoul Jos.	P	Frenchville, Me.
Draper, Harry Engman	P	Boston, Mass.
Philbrick, Fred'k Neil	A	Brookline, Mass.
Schofield, Parker F.	B	Malden, Mass.
Barnett, James Alex	P	Detroit, Mich.
Birchard, Glen R.	A	Bay City, Mich.
Bruce, James R., Jr.	P	Saginaw, Mich.
McClure, Wm. Allen	A	Royal Oak, Mich.
Dougherty, John Eugene	B	Minneapolis, Minn.
Evans, John Scrimgeour	P	St. Paul, Minn.
Randall, Heman W.,Jr.	P	St. Paul, Minn.
Compton, Keith Karl	A	St. Joseph, Mo.
McKee, Seth Jefferson	A	Illmo, Mo.
Mueller, Robert Burl	P	St. Joseph, Mo.
Armstrong, George H.	P	Billings, Mont.
Bloszies, Raymond Fred	A	Omaha, Nebr.
Gutru, George H.,Jr.	A	Newman Grove, Nebr.
Morrissey, Robert L.	P	Tecumseh, Nebr.
Romberg, Edgar Allen	P	Lincoln, Nebr.
Dechaene, Andre J.	O	Elizabeth, N.J.
Harman, Harold M.	B	Grants, N.M.
Spencer, Truman A.,Jr.	B	Carrizozo, N.M.
Doerr, John Joseph	B	Poughkeepsie, N.Y.
Fendrich, Charles N.	P	Staten Island, N.Y.
Heber, Malcolm McM.	B	White Plains, N.Y.
O'Neill, Brian	B	Yonkers, N.Y.
Rouse, John Albert	O	Rochester, N.Y.
Rudell, Raymond Frank	P	Buffalo, N.Y.
Saunders, Jack Wm.	A	Athens, N.Y.
Schroeck, Franklin E.	O	Buffalo, N.Y.
Busse, Raymond Joseph	B	Glenburn, N.D.
Skow, Delmer Norris	P	Devils Lake, N.D.
Brownewell, John L.	P	Bexley, Ohio
DeBolt, Arthur Ray	P	Columbus, Ohio
Gould, Campbell H.	B	Toledo, Ohio
Grambo, Frederick C.	P	Cleveland Hts., Ohio
Keiser, Donald McKay	B	McComb, Ohio
McNeal, Thomas Carl	B	Cleveland, Ohio
Newman, Neil Arnold	P	Lakewood, Ohio
Opeil, Charles Martin	P	Cleveland, Ohio
Rowland, Robert R.	P	Lodi, Ohio
Spurgeon, Raymond R.	P	Cincinnati, Ohio
Tucker, Theodore W.	O	Cleveland Hts., Ohio
Brewer, Paul M., Jr.	P	Oklahoma City, Okla.
Carter, Roy Milton	O	Britton, Okla.
Dick, Newton Robert	P	Tulsa, Okla.
Jackson, J. Garrett	P	Altus, Okla.
Johnson, James Allison	A	Wagoner, Okla.
Storm, Leonard Boston	P	Norman, Okla.
Summers, Thomas B.	P	Weatherford, Okla.
Von Tungeln, Herbert A.	A	Norman, Okla.
Willsie, Harold	A	Asher, Okla.
Worley, Earl Wilson	B	Littlestown, Pa.
Stiles, Joseph Erhart	B	Red Lion, Pa.
Aylesworth, Theo. R.	B	Knoxville, Pa.
Baseler, Robert Lee	P	Ardmore, Pa.
Clark, Eugene Louis	P	Clairton, Pa.
Giannatti, James	A	Uniontown, Pa.
Teats, Edward Charles	A	Pittsburgh, Pa.
Roberts, Wagner H.	P	Hartsville, S.C.
Veatch, Bernard W.	O	Conde, S.D.
Chiles, Clarence S.	B	Corryton, Tenn.
Smelser, Harold C.	B	Nashville, Tenn.
Camp, Marshall Pyron	P	Arlington, Texas
Morgan, Maurice Allen	B	Austin, Texas
Smith, Joseph Columbus	P	Brownsville, Texas
Banks, Wilson Harper	B	Brownfield, Texas
Faulkner, Cecil Lee	P	Bellevue, Texas
Locke, Cecil James,Jr.	A	Austin, Texas
Strickland, Eugene L.	P	Arlington, Texas
Gayle, Charles Afton	P	Bellaire, Texas
Henry, John Bailey,Jr.	P	Charlotte, Texas
Crabtree, Martin F.	A	Decatur, Texas
Sneed, Charles Roy	A	Evant, Texas
Bond, Charlie R.,Jr.	P	Dallas, Texas
Barksdale, Ralph A.	B	Gainesville, Texas
Riddle, Kyle Loyd	P	Decatur, Texas
Began, Charles Wm.	B	McLean, Texas
Jenkins, Jack Simmons	A	Levelland, Texas
Lane, William, Jr.	A	Marshall, Texas
Jenkins, Harry Albert	P	Montalba, Texas
Dunn, Frank Lowry	A	San Antonio, Texas
Gimble, Sidney B.,Jr.	O	San Antonio, Texas
Schriever, Gerhard J.	P	San Antonio, Texas
Glober, George Edward	B	San Angelo, Texas
King, Henry Preston	A	San Marcos, Texas
Hubbard, Wm. Edward II	A	Sweetwater, Texas
Barksdale, Wm. S.,Jr.	A	Randolph, Va.
Garrett, Skidmore Neal	P	Cumberland, Va.
Mathewson, Philip L.	A	Richmond, Va.
Tinker, Clarence L.Jr.	P	Arlington, Va.
Van Auken, Robert D.	P	Fort Belvoir, Va.
Gustafson, Roy Wm.	O	Seattle, Wash.
Momyer, Wm. Wallace	P	Seattle, Wash.
Gillum, Virgil Monroe	P	Shinnston, W.Va.
Hindson, Wm. Simms	A	Oak Hill, W.Va.
Marcum, Jake McD.,Jr.	P	Hamlin, W.Va.
Marshall, Charles S.	O	Grafton, W.Va.
Moore, Archibald W.	P	Huntington, W.Va.
Murrell, Carrell T.	P	Barrackville, W.Va.
Smith, Thomas Cullen	P	Marlinton, W.Va.
Weltman, John Wm.	P	Rowlesburg, W.Va.
Whiteman, Harold J	P	Salem, W.Va.
Wood, Curtis Edward	P	Huntington, W.Va.
Wrigglesworth, Wm.J.	A	Eau Claire, Wis.
Busch, Chester Chas.	B	Kenosha, Wis.
Stinson, William E.	A	Benton, La.
Potter, Philip Orville	A	Sao Paulo, Brazil

Note: A - Attack Aviation
B - Bombardment Aviation
O - Observation Aviation
P - Pursuit Aviation

Among the students listed above who hold commissions in the Reserve of other branches of the Service, the following are listed below:

Infantry

1st Lieuts. Cellini, Fendrich.

2nd Lieuts. Busch, Ford, Gould, McCauley, McNay, Riddle, Weltman, Worley.

Cavalry

1st Lieut. Harman

2nd Lieuts. Thornbrough, Wrigglesworth.

Field Artillery

1st Lieuts. Fletcher, Von Tungeln

2nd Lieuts. Garrett, Neely, Rowland, Schroeck, Schwind.

Coast Artillery

2nd Lieuts. Barksdale, Wm. S., Jr.; Dick, Mayden, Teats.

The class listed above constitutes approximately 50% of the number which began training at Randolph Field in March, 1938.

V-7879, A.C.

NEW BRAKE TEST EQUIPMENT

By Marguerite Jacobs Heron

The old balloon hangar at Wright Field, which for some years has been used for storage purposes, is about to retrieve its importance and assume the status of a testing laboratory. This change is the result of the delivery at Wright Field of certain mammoth machinery known as "Inertia Brake Testing Equipment," and the balloon hangar is undergoing interior modifications to prepare for its installation and the type of test work henceforth to be done there.

The new equipment, which was constructed by the Adamson Machine Company of Akron, Ohio, to Air Corps specifications, consists of two testing machines, the combined weight of which is 110 tons. The purpose of the equipment is the dynamic testing of brakes, wheels, and tires under conditions duplicating those encountered in all varieties of actual airplane landings. On the smaller machine will be mounted for testing 21 to 44-inch wheels; on the other, 44-inch and larger.

Each machine consists principally of a flywheel, driven by an electric motor, a spindle upon which the airplane wheel to be tested is mounted, a large air pressure cylinder for actuating the spindle, a large operating and instrument recording panel. When the flywheel, which in the larger machine weighs 55 tons and has a diameter of 120 inches, is set revolving, the spindle, with the wheel mounted, by means of air pressure from the cylinder located aloft, is moved toward the revolving flywheel so that the airplane tire is brought to bear against it. The contact sets the airplane wheel and tire revolving. Brake pressure is then hydraulically applied by means of fluid forced into the brake mechanism by a hydraulic pump.

The flywheel revolving at a speed approximating 80 m.p.h. stores up 11,000,000 foot-pounds of kinetic energy. When the brake is applied this energy is transformed to heat energy in the brake and brake drums. The amount of brake torque resulting from deceleration of the flywheel mass is transmitted hydraulically and graphically recorded by an instrument on the instrument panel. The hydraulic pressure required to operate the brake, and the r.p.m. of the moving flywheel are simultaneously recorded graphically on two other instruments on the panel, so that complete records of the test process and reactions are obtained. The amount of time consumed in bringing the moving masses to a stop by the brake mechanisms, and the resulting effect upon the tire, wheel, and brake equipment form the principal test information sought. The peripheral speed of the flywheel in these tests represents the speed of the airplane in relation to the ground. The airplane wheel, therefore, when it comes in contact with the revolving flywheel, is set in motion in the same manner as it would be on contact with the ground in landing. The brake mechanisms also function as they would in a ground landing. The revolutions of the flywheel may be set to simulate the landing speed of any type or model of airplane. The length of time properly required by the brake to stop the moving mass is known. If the brake under test accomplishes its task in from 10 to 13 seconds, and accomplishes it repeatedly without failure or breakdown of the brake mechanism, it is proved to be satisfactory equipment.

Similar but smaller equipment is used in testing locomotive and automotive braking mechanisms. These Inertia Brake Testing Machines, however, are the only ones of their kind in existence.

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RETIREMENT OF COLONEL SNEED

Colonel Albert L. Sneed, a ranking executive at Maxwell Field, Montgomery, Ala., since his arrival there on July 14, 1937, and who has been serving as Acting Commandant of the Air Corps Tactical School since the transfer two months ago of Brigadier General Henry C. Pratt to Fort William McKinley in the Philippines, will retire from active service with the U.S. Army Air Corps on December 31st, next. Colonel Sneed, who has had thirty years' service with the Army since his graduation from the United States Military Academy, West Point, N.Y., in 1908, left Maxwell Field on October 1st on a leave of absence.

By virtue of his rank, Colonel John H. Pirie, Air Corps, transferred to Maxwell Field from March Field, Calif., several weeks ago, will succeed Colonel Sneed as Acting Commandant of the Tactical School. Colonel Pirie, one of the Air Corps' higher authorities on aeronautical tactics and development, also is director of the Air Corps Board. This Board, designed to study new developments in aeronautics and to promote and instigate research work in that field, was reorganized by the War Department in December, 1934. Maxwell Field was at that time chosen for the headquarters of this Board, and the members thereof were assigned to full time duty in conducting its affairs.

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Major Charles A. Pursley, Air Corps, received temporary appointment to the grade of Lieut. Colonel, October 8,1938.

TORNADO NEAR RANDOLPH FIELD

Tornadoes do occur in the vicinity of Randolph Field, Texas. The questioning of oldtimers has revealed that a small tornado occurred during the construction of the field, but that the damames resulting therefrom were very slight.

On September 7, 1938, alert weather men were surprised to see a dark funnel extending downward from a thunderstorm cloud about three miles northwest of Randolph Field. The dark vortex bored its way downward and reached the ground in the vicinity of Converse, a small town three miles northwest of Randolph Field, pulled up about two acres of cotton and, as one man put it, "It was raining cotton all around." The entire phenomenon lasted about five minutes.

Flying Cadet Fendrich made an enviable record in the weather course - he achieved the notable feat of taking photographs of this brief prank of nature.

A 20-hour course in weather is being offered for the first time to the Reserve officers assigned to Randolph Field for refresher training. Since this course is given between regular student classes, flying instructors have been invited to attend, this being the first opportunity for many of them to attend the modern course in "Air Mass Analysis."

Several of the Post Weather Office personnel are increasing their knowledge of meteorology twofold by attending classes at St. Mary's University, San Antonio, Texas, and acquiring the fundamentals of meteorology, physics and algebra.

Corporal A.W. Throgmorton, formerly of the Post Weather Office, reports a very instructive course at the Weather School at Patterson Field, Fairfield, Ohio, which he is now attending. Prior to his attendance at this school, he pursued a three-weeks' course in teletype maintenance, given by the Teletype Company at Chicago, Ill.

The assignment of two of the enlisted weather forecasters on flying status has filled a long-felt need. These flights are being scheduled to make weather predictions more accurate. It is felt that pilots will have more confidence in the men who have actually seen flying weather.

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Captain Charles G. Brenneman, Air Corps, was placed on the retired list, effective October 31, 1938, for disability incident to the service.

Master Sergeant Arthur C. Foster, of the Headquarters and Headquarters Squadron, Air Corps Advanced Flying School, Kelly Field, Texas, was placed on the retired list at that field, effective October 31, 1938.

OFFICERS OF OTHER BRANCHES FAMILIARIZE THEMSELVES WITH AIR CORPS FUNCTIONS

In order to familiarize other personnel of the Army with the function and operation of the Air Corps, eight officers of other branches of the service were slated to arrive at Hamilton Field, Calif., to undergo instruction for a period of two weeks in Meteorology, Operations and Dispatching, and to observe the working of the Photographic and Parachute Departments.

These officers are Major Walter A. Dumas, Infantry, from the 9th Corps Area Headquarters, Presidio of San Francisco, Calif.; Captain William G. Holder, 1st Lieuts. Joe C. Rast, John E. Metzler and 2nd Lieut. Iver A. Peterson, all Coast Artillery and from Fort Winfield Scott, Calif.; and 1st Lieut. Robert L. Love, 2nd Lieuts. Leon J.P. Rouge and John A. Norris, all Infantry, from the Presidio of San Francisco.

Although none of the officers were to be required to fly, permission was to be accorded them to accompany different flights on photographic, bombing and reconnaissance missions.

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COMMENDATION FOR AIR CORPS ENLISTED MAN

In a letter to the Commanding Officer of the 4th Air Base Squadron, March Field, Calif., 1st Lieut. W.G. Carter, Air Reserve, 9th Bombardment Squadron, Hamilton Field, Calif., writes as follows:

"During our stay at March Field, September 16-20, 1938, we received splendid service from all technical maintenance and supply departments, and I wish especially to commend the work of Sgt. David F. Miller.

Serious leakage of oil from both engines on BG-17 caused an unusual job of 'Trouble-Shooting,' during which the assistance rendered by Sgt. Miller was outstandingly noticeable for the efficiency and willingness with which it was given.

This is the second time this man's work has come to my attention, and in each case he gave a demonstration of steady, energetic skill and resourcefulness which expedited the job to an extent plainly apparent to any observer. He headed the crew that brought an engine to my disabled B-12 at Lordsburg, New Mexico, several months ago, and performed an engine change in the manner stated, under difficult circumstances.

I feel it is not amiss that his noticeably good performance be brought to the attention of his Commander."

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Captain Edgar T. Selzer, Air Corps, received a temporary appointment to the grade of Major, effective October 16, '38.

STATION ASSIGNMENTS OF GRADUATES OF AIR CORPS TRAINING CENTER

The 80 Flying Cadets who graduated from the Advanced Flying School, Kelly Field, Texas, October 5, 1938, and who have been commissioned second lieutenants in the Air Corps Reserve, have been assigned to extended active duty at the Air Corps stations indicated below, viz:

To the Hawaiian Department:
- Perry Sherman Cole
- Rudolph Emil Flack
- Ronald Dean Hubbard
- Arnold Frederick Adolph Kluever
- Gladwyn Earl Pinkston
- Robert Sidney Quinn
- John Alva Roberts, Jr.
- Gerald Graham Robinson
- Raymond Paul Salzarulo
- Walter William Sparks, Jr.
- James Fred Starkey
- Robert Hartwell Stuart
- Joseph Charles Tuell
- Ira Francis Wintermute

To Fort Lewis, Wash.:
- Rowland Wells Hopper
- Reesor Mott Lawrence

To Fort Riley, Kansas:
- Houston Walker Longino, Jr.
- Charles Lewis Nothstein

To Langley Field, Va.:
- Forrest Houston Baxter
- Harry J. Bullis
- Charles Marion Eisenhart
- Francis Robert Feeney
- Willard Asa Fountain
- Philip Henry Greasley
- John Patrick Healy
- Elton Earl Holcombe
- Glenn Elwood Hubbard
- William Elza McEntire
- Frank Edwin O'Brien
- Guy Hamilton Rockey
- Paul Schwartz
- Eriksen Emerson Shilling
- Van Hatton Slayden
- William Alexander Sullivan, Jr.
- Ozburn Early Taylor
- Arthur James Walker
- Sam Wilkins Westbrook

To March Field, Calif.:
- Jack Adams
- Walter Erath Arnold, Jr.
- William John Bohnaker
- Robert Vernon DeShazo
- Edwin Smith Green
- Frederick James Knorro, Jr.
- James Robert Lindsay
- Charles Albert Nisbett
- Sig Rodgers Young

To Mitchel Field, N.Y.:
- Thomas Philip Bacon
- Richard Murray Bylander
- Edward Richard Casey
- Huntington Kerr Gilbert
- McHenry Hamilton, Jr.
- Allen Moore Howery
- John Max Knox
- Frank Joseph McGinity
- Robert Ross McKechnie
- John Douglas Madre

To Mitchel Field, N.Y.:
- Ernest Roderic Manierre
- Joe Lennard Mason
- John Peebles Proctor
- LeRoy Len Stefonowicz
- John Lynn Sullivan
- Wayne Earl Thurman
- Raymond Frederick Toliver
- Samuel Bey Wiper
- Paul John Yurkanis

To Moffett Field, Calif.:
- Duane Louis Kime
- Leland Stanford McGowan

To Hamilton Field, Calif.:
- John Noble Carlton
- William Hubbert Cleveland
- Harold Douglas Courtney
- John William Osborn
- William Jesse Prichard
- Frank Douglas Sharp
- Horace Milton Wade

To Selfridge Field, Mich.:
- Brewster Ward

To Scott Field, Ill.:
- Harry Taylor Eidson
- Maurice Joseph Fitzgerald
- Oscar Allen Heinlein

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RANDOLPH FIELD NONCOMS. HOLD SMOKER

The Noncommissioned Officers' Club, Randolph Field, Texas, held its monthly smoker in the form of a "Dutch Lunch" in the west club building on Thursday, October 13th. These smokers have gained popularity among the membership of the Club to the extent that the present club building does not meet the requirements for such activities. The Club's present membership, although not compulsory among the noncommissioned officers of the command, boasts of more than 200 members.

Many of the newly appointed noncommissioned officers who have become members of the Club made their initial visit to it on the night of the smoker. They were welcomed by the President, Master Sergeant Brainard D. Booth, who officiated as master of ceremonies. The entertainment committee justified their offices in true Army form and made the evening very enjoyable.

It is difficult to estimate the true value derived by all from this organization of noncommissioned officers in social activities, but it is obvious that it tends to increase the morale and good fellowship of the command. There were yarns of away back, when the "Jenny" and the "DH" were "it" - yarns of the days when we all choked on that standing collar, and parachutes were not in general use. "These reminiscences of the evening are enjoyed by all, for tomorrow we return to the modern Air Corps and equipment, and carry on to yet higher

(Continued on Page 14).

13TH ATTACK SQDN. IN FT. BRAGG MANEUVERS

Early on the morning of October 1st, the 13th Attack Squadron, composed of 25 A-17A Attack airplanes, commanded by Major Auby C. Strickland, Air Corps, departed in formation from Barksdale Field, La., for Langley Field, Va., to participate in the joint anti-aircraft-General Headquarters Air Force Maneuvers at Fort Bragg, N.C. The Squadron arrived at Langley Field at 5:00 p.m., having made one stop enroute at Atlanta, Ga.

A number of interesting dawn and night attack missions were conducted during the exercise, some in support of Bombardment Aviation, and several independent Attack missions. These exercises afforded an excellent opportunity for the study of existing methods of attack, development of new methods and the further training of personnel in this type of flying. Several of these missions were carried out under weather conditions unfavorable to flying but favorable to concealment, and the effects of varying conditions of visibility on both the hostile (Blue) defensive forces and friendly (Black) offensive air force were such as to merit further study.

The officers of this Squadron with those of other visiting organizations were entertained at a dinner dance at the Langley Field Officers' Club on the night of October 8th. An excellent mess was served visiting organizations by the 1st Air Base Squadron, and comfortable quarters were provided the 13th Attack Squadron by the 35th Pursuit Squadron.

The Squadron departed from Langley Field on October 16th, taking off by elements and climbing through a low overcast. Assembly was effected enroute, and excellent time was made on the return trip. One stop was made at Maxwell Field, where efficient ground personnel completed refueling operations in a remarkably short time.

The News Letter Correspondent expresses his belief that, from the standpoint of Attack Aviation, many valuable lessons were learned from these exercises and that the training afforded in conjunction with Bombardment, Pursuit and anti-aircraft forces was invaluable.

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COOPERATIVE MISSIONS BY 90TH ATTACK SQDN.

The major portion of the month of October was spent by the 90th Attack Squadron in preparing and participating in the cooperative missions with ground forces conducted for the Command and General Staff School of Fort Leavenworth, Kansas. The base of operations was at Fort Riley, Kansas. A flight of 9 A-17A's, led by Major Paul L. Williams, Air Corps, Commanding Officer, left Barksdale Field, La., on October 15th, for Fort Riley. Ten more A-17A's joined the first flight on October 20th to participate in the GHQ Air Force demonstration held there.

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P-36A's BEGIN ARRIVING AT BARKSDALE

Almost every day now, pilots of the 20th Pursuit Group, Barksdale Field, La., are leaving for Buffalo, N.Y., the home of the Curtiss aircraft factory, to ferry back the long awaited P-36A's. Each Squadron of the Group has three airplanes now and hopes to have more in a few days. Every pilot in the Group who has been checked off in the new ship seems to be very enthusiastic about it. A series of tests are being prepared for this airplane to determine its fuel consumption and general performance for tactical use.

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LUKE TROPHY GOES TO 77TH PURSUIT SQDN.

The 77th Pursuit Squadron, stationed at Barksdale Field, La., proudly acclaims acceptance of the Frank Luke Memorial Award for the second consecutive year. This coveted Trophy is awarded annually to the GHQ Air Force Pursuit unit scoring highest in aerial gunnery training.

Brigadier General Frederick L. Martin, Commanding General of the Third Wing, will formally present the Trophy to the 77th Pursuit Squadron on November 5, 1938.

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Smoker by Randolph Field Noncom. Officers

(Continued from Page 13).

standards of this branch in which we have all grown from recruits to old soldiers," is the way one veteran noncommissioned officer summed up the evening.

Noncommissioned officers of other stations are cordially invited to partake of the hospitality of this Club while sojourning Randolph way.

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BOLLING FIELD OFFICERS FLY IN "DST" PLANE

Lieut. Colonel Floyd E. Galloway, Commanding Officer of Bolling Field, D.C., and a number of other officers of the post had an opportunity on October 20th to fly in the latest "DST" sleeper transport, built by Douglas and flown on American Airlines on the transcontinental service. The occasion was the demonstration of the new Sperry-RCA Automatic Direction Finder.

Several officers from the Office of the Chief of the Air Corps, Washington, D.C., also flew in the "DST" which is the largest commercial airplane in regular service in the country.

V-7879, A.C.

NEW COMMANDER FOR MAXWELL FIELD

Colonel John H. Pirie, Air Corps, who came to Montgomery, Ala., recently from March Field, Calif., assumed command of Maxwell Field, Ala., on October 4, 1938, and became Acting Commandant of the Air Corps Tactical School, replacing Colonel Albert L. Sneed, Air Corps, who, scheduled to retire from active service on December 31, 1938, returned to his home in the vicinity of San Francisco, Calif.

As a token of their esteem, the officers at Maxwell Field presented Colonel Sneed with a golf bag when bidding him goodbye. Colonel Sneed had been among the most popular officials at Maxwell Field since his arrival there on July 14, 1937.

Colonel Pirie, in addition to being Commanding Officer of Maxwell Field, is head of the important Air Corps Board, a group of ranking officers with authority to promote and instigate research into aviation problems and to study developments in this field as they occur.

While expressing regret over the retirement of Colonel Sneed, the Tactical School personnel joined in welcoming the return thereto of Major W.W. Welsh, following his recovery from an illness which confined him at the Army and Navy General Hospital, Hot Springs, Ark., for two months. Major Welsh will resume the duties of Adjutant of the Tactical School, with Lieut. D.B. Schannep as assistant.

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RECENT CLIPPER TALE BELIEVED FALSE ALARM

Manila papers recently devoted much space to reports from Filipino citizens living along the west coast of the Island of Samar that the "Hawaiian Clipper" was sighted, in flames, and that it crashed into the sea in that vicinity on July 29th. It is thought, however, that the plane which the natives sighted was the Nichols Field Amphibian piloted by 1st Lieut. Ralph O. Brownfield, who was assigned the coastal regions of Samar as part of the area to be covered by him in the extensive search which was then being conducted by six airplanes from Nichols and Clark Fields, as well as by airplanes dispatched by the Navy.

Lieut. Brownfield stated that many of the recent reports from Samar coincide with his movements on that date, in that he put the "Duck" down during the afternoon of July 30th in the region described by the reports, which was between the Tagapulan and Destacado Islands. He also stated that he flew through a cloud bank before landing, and that the "black smoke" described in the reports might have been from the exhaust of his plane which emits heavy vapor when the engine is "gunned" just before landing.

INTERCEPTION PROBLEM BY 5TH BOMB. GROUP

On September 29th, the 5th Bombardment Group, Luke Field, T.H., performed another interception on the U.S. Army Transport REPUBLIC, when the vessel was some 24 hours out of Honolulu. Departing from Makapuu Head at 1106, the Group, flying B-18 planes and led by Major John I. Moore, proceeded on a northeasterly course and intercepted the transport on schedule at 1319½ at a distance of 329 nautical miles from Oahu. The flight was made over scattered to broken clouds at an average altitude of 8,000 feet. Lieut. Colonel Robert C. Candee, commanding the 18th Wing, accompanied the formation.

After passing over the vessel in salute, the Group returned to Oahu, the squadrons performing individual navigation. The landing at Hickam Field was made at 1600, after an uneventful but extremely valuable training mission.

On board the transport REPUBLIC was Brigadier General Walter H. Frank, Air Corps, coming to Hawaii to assume command of the 18th Wing; Colonel Shepler W. FitzGerald, Air Corps, to assume command of Luke Field and the 5th Bombardment Group; and Lieut. Colonel William E. Lynd, Air Corps, to take over the command of the 18th Pursuit Group.

Messages were exchanged between Colonel Candee and General Frank shortly after the formation departed from the transport enroute to Oahu.

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COOPERATIVE MISSION BY 2ND OBS. SQUADRON

The 2nd Observation Squadron of the 4th Composite Group, Nichols Field, P.I., recently conducted cooperative training missions with the 60th Coast Artillery regiment, stationed at Fort Mills, Corregidor.

Two missions were carried out daily with anti-aircraft machine gun training. White sleeve targets, approximately 30 feet long and 12 feet in circumference, were towed by an Observation airplane. The targets were operated from a windlass reel located under the fuselage of the plane and extended about 800 feet, attached to a cable.

Approaching and parallel courses were flown. Upon the completion of each mission, the targets were released and dropped on the Fort Mills landing field for the purpose of affording the Coast Artillery personnel an opportunity to observe the maneuver. Communication was coordinated between the airplane flying the mission and the radio stations at Fort Mills and Nichols Field.

First Lieuts. Tom W. Scott, John O. Neal, Andrew Meulenberg, Frederick E. Calhoun, 2nd Lieuts. James E. Gunn, Edward W. Maschmeyer and Joseph J. Nazarro participated in the missions. Private Lester E. Gates operated the tow targets.

V-7879, A.C.

STUDENTS GRADUATE FROM TECHNICAL SCHOOL

The academic section of the Chanute Field Branch of the Air Corps Technical School announces the graduation on October 7, 1938, of twelve students in the "Airplane Mechanics Course," and on October 21, 1938, of 48 students in the following courses: Radio Repairers and Operators, 22; Airplane Mechanics, 14; Aircraft Welders and Sheet Metal Workers, 12.

Of the twelve students who graduated on on October 7th from the Airplane Mechanics Course, three are from Hamilton Field, Calif.; two from March Field, Calif.; and one each from Barksdale Field, La.; Air Corps Detachment, 5th Corps Area; Fort Knox, Ky.; Brooks Field, Texas; 7th Corps Area Air Corps Detachment; Chanute Field, Ill. One unassigned student has been ordered to duty with the Air Corps Detachment at East Boston, Mass.

Of the 48 students who graduated on October 21st, 8 Radio Repairers and Operators, 11 Airplane Mechanics and 8 Aircraft Welders and Sheet Metal Workers were unassigned. These were distributed to Air Corps stations, as follows:

Radio Repairers and Operators: Air Corps Detachment, Pittsburgh, Pa., 2; Lowry Field, Denver, Colo., 1; Hawaiian Department, 3; Chanute Field, 1.

Airplane Mechanics: Air Corps Detachment, West Point, N.Y., 1; Lowry Field, Denver, Colo., 1; Hawaiian Department, 2; Panama Canal Department, 3; Philippine Department, 2; Chanute Field, 2.

Aircraft Welders - Sheet Metal Workers: Lowry Field, 1; Post Field, Okla., 1; Kelly Field, Texas, 1; Fort Lewis, Wash., 1; Panama Canal Department, 3; Chanute Field, 1.

The graduates who came to the Technical School from various Air Corps stations are enumerated below, as follows:

Radio Repairers and Operators: Scott Field, Ill., 1; Barksdale Field, La., 5; Fort Lewis, 1; Chanute Field, 1; Hamilton Field, 3; Moffett Field, Calif., 1; Maxwell Field, Ala., 1; Bolling Field, D.C., 1.

Airplane Mechanics: Barksdale Field, 1; Fort Lewis, 1; March Field, Calif., 1.

Aircraft Welders - Sheet Metal Workers: Fort Lewis, 1; Maxwell Field, 1; March Field, 1; Kelly Field, 1.

On October 28, 1938, 44 Radio Operators and Repairers and 25 Airplane Mechanic students at the Air Corps Technical School, Chanute Field, were scheduled to start training in their new departments. These are the first students to complete the basic instruction course started this year. The addition of this new course has made it possible to increase the Airplane Mechanics course from 15 to 25 students and the Radio Repairers and Operators course from 30 to 44 students.

RANDOLPH FIELD ENGINEERING NOTES

With the completion of the training of the July Class of students at the Air Corps Primary Flying School, Randolph Field, Texas, came a 15-day lull in flying, which was very welcome, enabling the engineering department to catch up with its work. During this period, when the maintenance personnel of the school squadrons get a little vacation, the station engineering personnel are kept busy on the task of complying with technical changes which could not be made during the training period. The Air Corps shops make these changes and other repairs at this time, so that very little, if any, time is lost during the regular training period, when a maximum number of airplanes are required.

Randolph Field is confronted with a problem not present at any other Air Corps station, in that during the last portion of a class the majority of airplanes average from five to eight hours of flying daily, thus calling for many additional forty-hour inspections.

The Station Engineering Officer and Technical Inspector, Major W.M. Reid, being on leave, the duties of that department during the month of October fell on the shoulders of Captain H.W. Dorr who, in addition to these duties, is the Engineering Officer of the 11th Air Base Squadron and Shop Superintendent. He is assisted in the shops by Master Sergeant H.F. Carmean. The inspection staff consists of Master Sergeant Wallace (chief); Technical Sergeants Hohensee, Williams and Shaw; Staff Sergeants Griffin, Robinson, Hadley and Soball. The Chief Clerk of the Station Engineering Department is Staff Sergeant A. Brown, whose assistant is Sergeant J.H. Carleton.

At this time there have been 46 sets of slot assembly, wing, leading edge, installed on the BT-9B series airplanes at Randolph Field. This installation was designed to overcome certain undesirable stalling characteristics of this type airplane.

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MORE LAND FOR RANDOLPH FIELD ACTIVITIES

An option has been secured by the Quartermaster at Randolph Field, Texas, Major Franklin D. Shawm, Q.M.C., for 25 acres of land, located 1¼ miles south of that field, on the Converse-Graytown Road, together with right-of-way thereto, for the erection of radio control towers and the necessary buildings. Funds for the purchase of this land were appropriated by Congress last year. No definite plans have been as yet formulated for the completion of this project.

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O B I T U A R I E S

The whole Air Corps was shocked and deeply grieved to learn of the death of Colonel Percy E. Van Nostrand, Air Corps, commanding officer of March Field, Calif., as the result of cardiac failure. Those who knew him well realized fully the ability and professional attainment of this popular officer, and his death leaves a gap which will be hard to fill.

Colonel Van Nostrand was born on August 6, 1887, at Washington, Iowa. He graduated in 1912 from the State University of Iowa, receiving an A.B. degree.

After serving as a commissioned officer in the Iowa National Guard Infantry from August, 1909, to February, 1913, he accepted a commission as second lieutenand in the Infantry, Regular Army, on March 3, 1913. He was promoted to 1st Lieutenant on July 1, 1916; to Captain on May 15, 1917; to Major, Signal Corps, October 23, 1917; to Major, Air Service, October 16, 1920; to Lieut. Colonel, Air Corps, August 1, 1935, and to Colonel (temporary) June 17, 1938.

During the World War, Colonel Van Nostrand was one of the early settlers at Kelly Field, Texas, and he was Adjutant of that post until May 14, 1918, when he was transferred to the Army Balloon School at Fort Omaha, Neb., for duty as a student. Upon the completion of the lighter-than-air course at that school he was, on August 15, 1918, rated as a Balloon Observer. He remained at Fort Omaha, serving as Executive Officer, until December 26, 1918, when he reported for duty as Executive Officer, Balloon and Airship Division, Office of the Director of Air Service, Washington, D.C. During his tour of duty in Washington, he served at various times as Acting Chief of the Balloon and Airship Division and was a member of several boards and committees, among them the Aeronautical Board and the Helium Board.

For several months during the latter part of 1921, Colonel Van Nostrand was on temporary duty in England in connection with the inspection of the Airship R-38. He was also on temporary duty in France and Germany in connection with airship activities. Shortly following his return to Washington, in October, 1921, he was temporarily assigned to duty at Langley Field, Va., as a student at the Airship School and, upon the completion of the course of instruction he was, on January 21, 1922, assigned as Acting Assistant Chief of the Lighter-than-Air branch of the Training and War Plans Division and Chief of the Schools Section, Office of the Chief of Air Service.

In November, 1922, Colonel VanNostrand was assigned to duty as Army observer in connection with the airship ZR-1 at the Naval Aircraft Factory at Philadelphia, Pa. In March, 1923, he was assigned to duty at the Naval Aircraft Station at Lakehurst, N.J., to take a rigid airship training course.

From March to July, 1924, he was on temporary duty at Brooks Field, Texas, and he was then transferred to the Advanced Flying School at Kelly Field, Texas, where he completed the course in advanced observation. During the two years following, he completed the course at the Air Corps Tactical School at Langley Field, Va., and the Command and General Staff School at Fort Leavenworth, Kansas.

Colonel Van Nostrand began his tour of foreign service in the Hawaiian Department in August, 1926, being on duty as Commanding Officer of Luke Field and the 5th Composite Group until August, 1929, when he returned to Langley Field for duty as Instructor at the Tactical School. In May, 1931, when the Tactical School was moved to Maxwell Field, Ala., he was in command of that post to August 11th of that year, and served temporarily as Acting Commandant of the Tactical School. Thereafter, until July, 1932, he was Executive Officer at Maxwell Field.

Upon his graduation from the Army War College in June, 1933, Colonel Van Nostrand was on duty for a year as Assistant Commandant of the Air Corps Technical School at Chanute Field, Rantoul, Ill. He then returned to Washington to pursue the one-year course of instruction at the Army Industrial College and, following his graduation therefrom in June, 1935, he was detailed as a member of the War Department General Staff. Three years later, in June, 1938, he was assigned to duty at March Field, Calif.

Funeral services for the deceased Air Corps officer were held at the Arlington National Cemetery on the morning of October 22nd, the following officers serving as honorary pallbearers: Colonels Rush B. Lincoln, H.H.C.Richards, Clarence L. Tinker, Lieut. Colonels M.F. Davis and H.M. McClelland, Air Corps, and Lieut. Colonel W.E. Shipp, Cavalry, General Staff Corps.

Major John H. Gardner, Air Corps, was the victim of a very distressing accident at Sherman Field, Fort Leavenworth, Kansas, on October 15, 1938. He was walking across the ramp preparatory to making a flight and, unaware of the approach of a BC airplane which was being slowly taxied in his direction, he was struck by the propeller. The pilot of the airplane did not see Major Gardner.

Of a pleasing personality and one

which inspired confidence, Major Gardner was held in high regard by his brother officers, and his death constitutes a distinct loss.

Born on May 30, 1896, at Alamo, Calif., he graduated in 1916 from the Mt. Tamalpais Military Academy, San Rafael, Calif., and then entered as student at the Leland Stanford, Jr. University at Palo Alto, Calif., which he attended for about six months when, on October 1, 1917, he enlisted as a Private, 1st Class, in the Aviation Section, Signal Corps.

Assigned as a student at the School of Military Aeronautics, Berkeley, Calif., from which he graduated in January, 1918, he was transferred to Kelly Field, Tex., for his flying training and, upon completion of same, was commissioned a Second Lieutenant on March 26, 1918, and assigned to active duty at Camp Dick, Dallas, Texas, as assistant to the Chief Wireless Instructor. The following month he was transferred to Taliaferro Field, Hicks, Texas, and he served as flying instructor at the Aerial Gunnery School thereat until September, 1918, when he was assigned to duty as Assistant Engineering Officer.

In September, 1919, Major Gardner was assigned as Engineering Officer of the 90th Aero Squadron at Sanderson, Texas, and he served with this organization until November 7, 1920, when he was transferred to Kelly Field, Texas, for duty as Chief, Airplane Division, Air Park Group.

On March 31, 1921, he reported at the Air Service Communications School at Post Field, Fort Sill, Okla., where he was on duty as a student for five months; in the Engineering Department for one month; as instructor and supply officer for five months and as commanding officer of the Post Field detachment at the San Antonio Air Depot for two months.

Assigned on June 25, 1922, to duty at Chanute Field, Rantoul, Ill., he was stationed thereat for slightly over a year, performing the duties of instructor at the Air Service Communications School and Property Officer.

In September, 1923, and for a period of four years thereafter, Major Gardner was stationed at France Field, Panama Canal Zone, and he served as Adjutant of the Post and later as Commanding Officer of the 6th Composite Group Headquarters and as Adjutant of the 24th Pursuit Squadron. He also performed squadron duty with the 25th Bombardment Squadron.

For a period of six years from October 1, 1927, Major Gardner was on duty at Nashville, Tenn., as Air Corps instructor of the 30th Division, Tennessee National Guard. During the school year 1933-1934, he was a student at the Air Corps Tactical School at Maxwell Field, Ala., and, following his graduation, he was assigned to the Municipal Airport at Seattle, Wash., for duty with the Organized Reserves of the 9th Corps Area. He began his duty as a student at the Command and General Staff School at Fort Leavenworth, Kansas, in September, 1938.

Major Gardner was commissioned a Second Lieutenant in the Air Service, Regular Army, on July 1, 1920, and was promoted to First Lieutenant on the same date; to Captain, Air Corps, on November 1, 1931, and to Major (temporary) on June 16, 1936.

The Air Corps expresses its deep sympathy to the bereaved families of the deceased Air Corps officers.

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WAR DEPARTMENT SPECIAL ORDERS
Changes of Station

Upon the completion of their tour of duty in the Hawaiian Department, the following-named Air Corps officers are assigned to stations, as follows:

To Chanute Field, Ill.: 2nd Lieut. Graeme S. Bond.

To Duncan Field, Texas: 2nd Lieut. Martin A. Bateman.

To Fort Bragg, N.C.: 1st Lieut. George F. Kehoe, to 16th Obs. Squadron.

To Maxwell Field, Ala.: 1st Lieuts. Leland S. Stranathan and Kenneth A. Rogers.

To Langley Field, Va.: 2nd Lieut. Joseph A. Thomas.

To March Field, Calif.: 2nd Lieut. James C. Cochran.

To Mitchel Field, N.Y.: 2nd Lieut. Earl E. Bates, Jr.; Captain Donald W. Titus and 1st Lieut. Maurice M. Simons, for duty with 97th Observation Squadron.

To Randolph Field, Texas: 2nd Lieut. Louis W. Proper.

The following-named officers were assigned to duty in the Hawaiian Department: Captain George R. Bienfang, from Barksdale Field, La.; 1st Lieuts. Gordon A. Blake, Chanute Field; Hugh F. McCaffery, Langley Field; Arno H. Luehman, March Field.

To Bolling Field, D.C.: 1st Lieut. Eugene H. Beebe, from Wright Field, O.

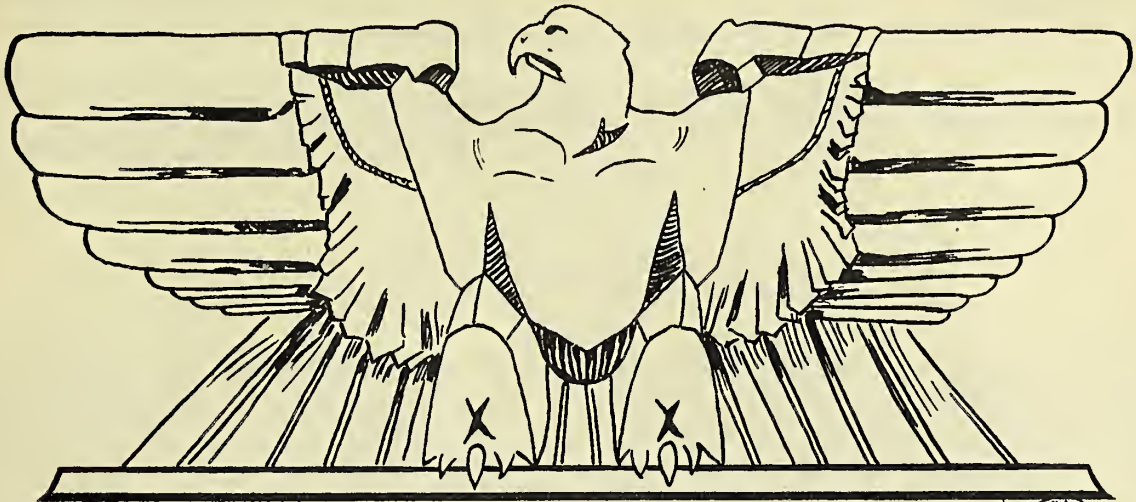
To Mitchel Field, N.Y.: 1st Lieut. Arthur A. Fickel, from Panama Canal Dept.

The following named Air Reserve officers have been assigned to extended active duty at the stations indicated:

2nd Lieut. Andrew Dale Moore, of Berwyn, Ill., to Selfridge Field, Mich., to November 1, 1941.

2nd Lieut. Jon Ansel Laird, of Waco, Texas, to Randolph Field, Texas, to October 13, 1940.

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VOL. XXI AIR CORPS NEWS LETTER NO. 22.
Information Division, Air Corps — Munitions Building, Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard and others connected with aviation.

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HOSE CLAMPS

By Lieut. D.J. Keirn, Air Corps

It is often said of an engineer that he cannot see a forest because of the trees. It might be said with equal suitability of a botanist that he cannot see the trees because of the leaves. Often the aeronautical engineer must adopt the botanist's point of view and direct the closest kind of scrutiny to the most insignificant parts. Today at the Materiel Division, Wright Field, we glorify the hose clamp.

To the uninitiated, a hose clamp is a simple mechanism composed of a strap of soft steel that may be wrapped around a rubber hose, and a screw clamp of some sort by which the two ends of the strap are pulled together, squeezing a rubber hose to a pipe. But let us take a look at the hose clamp through the eyes of an engineer.

There have been some hose connection failures. What's to be done about it?

There are three phases to the solution:

1. Hose nipples with greater bead height.
2. Hose with more flexibility to permit use with nipples having greater bead height.
3. Hose clamps that are stronger, less subject to abuse in installation, more easily installed, and that incorporate no important disadvantages.

The first two phases are comparatively simple of solution, but the hose clamps present quite a problem. Approximately a dozen different types have been tested and at least two or three times that many have been considered and inspected. To improve this equipment, we must first determine as far as possible what the desirable characteristics are; second, set up equipment and a test procedure whereby we may accurately evaluate desirable qualities of various clamps; third, with the knowledge thus gained, prepare a specification; fourth, invite manufacturers to design and submit clamps to meet this specification; and fifth, type test the clamps submitted to determine their ability to meet said specification.

Many of the hose clamp characteristics cannot be evaluated by any method other than inspection, speculation, or service testing, preferably the latter. That's why Unsatisfactory Reports were born. Certain performance characteristics, however, can be determined by laboratory testing; for example, the strength of the clamp, the pressure exerted by the clamp, the required wrench torque needed for any degree of tightness, the amount of wrench torque that causes failure, and the evenness of the gripping action. To accomplish these tests it is necessary to design and construct special equipment. A torque wrench and a special hydraulic load testing machine have been developed, the latter to test the tension load with the clamp properly installed. Special fittings are used to measure the gripping action, and evenness of grip is measured by deformation of an aluminum tube. Five hundred man hours have been expended to date; another two or three hundred should finish the investigation.

Other current power plant tasks are an oil cooler to be investigated, a hydraulic fuel pump drive and a simple exhaust collector ring sleeve to be developed. There are always defects to be eliminated and improvements to be made to perfect the equipment of the future. There is always that optimum visible just around the corner but never reached

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CLASS 39-A STARTS FLYING, AND HOW!

The largest class of students to report to the Air Corps Advanced Flying School, Kelly Field, Texas, from the Primary Flying School, Randolph Field, Texas, consisting of 4 Regular Army officers, 6 National Guard officers and 166 Flying cadets, started flying training on Monday October 17th, with a bang.

The Kelly Field Correspondent says that the weather man failed to give this section of the country enough rain to settle the dust, and Kelly Field was so hidden in the dust at times that it required extreme caution by the students and numerous approaches on some landings before the plane successfully reached the ground.

The School Squadrons at Kelly Field

(Continued on Page 4).

RETIREMENT OF MASTER SERGEANT FOSTER

By the Kelly Field Correspondent

Orders recently published by the War Department placed Master Sergeant Arthur C. Foster, Air Corps, on the retired list of the Army, effective October 31, 1938, on which date he completed over thirty years of service with the colors.

This noncommissioned officer, who has reached the half century mark in age and who has had a varied and very interesting as well as colorful military career, first entered the service on January 18, 1908. He served four 3-year enlistments in the Cavalry, a one-year enlistment in the Quartermaster Corps, and for the past 17 years he served continuously in the Air Corps. Sergeant Foster is the possessor, and proudly so, of nine Discharge Certificates, all of which bear the notation of Character "Excellent." On each discharge date, except the first, he held noncommissioned officer grades of Sergeant and higher ranks. For about six years he held the grade of First Sergeant, and he received his appointment as Master Sergeant, Air Corps, on March 1, 1938.

This colorful soldier, in addition to seeing active service on the Mexican border, served in France and Germany during the World War, and had another tour of foreign service when he was on duty in the Panama Canal Department from 1931 to 1934, while a member of the Air Corps at France Field. He has had two tours of duty at Kelly Field, his service at that field totaling eleven years. His first tour was from 1924 to 1930, and his second tour started on April 18, 1933, when he returned from Panama. His latest assignment at Kelly Field was with the Headquarters and Headquarters Squadron, Air Corps Advanced Flying School, as its popular First Sergeant. He has been attached to that organization since receiving his appointment as Master Sergeant, awaiting retirement orders.

Sergeant Foster holds a commission as Second Lieutenant in the Cavalry Reserve, and is the proud possessor of the Mexican Border Medal and the World War Victory Medal.

A dinner in his honor, held by the Headquarters and Headquarters Squadron on the date of his retirement, was attended by several staff officers of the School as well as the entire organization.

Major George M. Palmer, Air Corps, Executive Officer, representing Colonel Frank D. Lackland, Commandant, congratulated Sergeant Foster on his retirement, and Captain John C. Crosthwaite, Air Corps, Commanding Officer of Headquarters and Headquarters Squadron and Post Adjutant, after a few well chosen remarks, presented Sergeant Foster with a beautiful set of silver on behalf of the enlisted men of the organization.

A native of Westford, Vermont, Sergeant Foster will make his permanent home in San Antonio, Texas, with his wife (Mrs. Ivy Foster) and daughter (Dixielee) at their newly purchased home at 255 Taft Boulevard.

Sergeant Foster has been the recipient of congratulations from many of his friends throughout the service. Kelly Field and the Air Corps wish this splendid soldier success in the future, and congratulate him on his well earned retirement.

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PROMOTION OF NONCOMMISSIONED OFFICERS

Technical Sergeants Ralph McNeely, of Moffett Field, Calif., and John M. Suggs, of Hamilton Field, Calif., were promoted to the grade of Master Sergeant, effective November 1, 1938.

Staff Sergeants Johnny V. Yocum, stationed in the Philippine Department, and Harold F. Carlow, of Fort Bragg, N.C., were promoted to the grade of Technical Sergeant in the Air Corps, effective November 1, 1938.

Technical Sergeants McNeely and Suggs were Nos. 28 and 29, respectively, on the list of noncommissioned officers qualified for appointment as Master Sergeant, which list was published in the issue of the News Letter of February 15th of this year. The promotion of these two noncommissioned officers leaves Technical Sergeant John A. Wupperfeld No. 1 on this list for promotion to the grade of Master Sergeant. He was No. 30 on the original list.

Staff Sergeants Yocum and Carlow were Nos. 56 and 57, respectively, on the list of Staff Sergeants qualified for appointment to the grade of Technical Sergeant, published in the Air Corps News Letter of March 1, 1938. The promotion of the above two Staff Sergeants leaves Staff Sergeant Graham Platt, who was No. 58 on the original list, in line for the next promotion to the grade of Technical Sergeant, Air Corps.

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NEW PURSUIT PLANE FERRIED TO WRIGHT FIELD

Lieut. William M. Morgan, Air Corps, recently ferried to Wright Field, Ohio, the new XP-40 (Curtiss Pursuit) from the plant of the Curtiss Company, for performance testing by the Air Corps Materiel Division. The XP-40 is similar to the P-36, but the engine is liquid-cooled.

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Before a meeting of the Philadelphia Chapter of the Institute of Aeronautic Sciences, on October 28th, Lieut. H.F. Gregory, Air Corps, of the Aircraft Branch at Wright Field, presented a paper entitled "Army Experiences with Rotating Wing Aircraft."

AIR FREIGHT TERMINAL BUILDING AT FAIRFIELD AIR DEPOT

The most recent innovation in supply warehousing is the establishment at the Fairfield Air Depot, Fairfield, Ohio, of an air freight terminal building for the purpose of storing supplies ferried by air to inter-area and intra-depot stations.

Heretofore supplies received by air transport were stored in the main warehouse, three-quarters of a mile distant from the hangar line. This involved considerable warehousing and clerical effort to effect air shipments. With this new system, supplies for air transport are delivered direct to this terminal.

Platforms have been constructed on both sides of the terminal building the same height as a standard truck, so as to provide accessible loading and unloading facilities. Supplies are placed in allocated areas and suitable records made of the cubical content and weight of the commodities. Within the allotted area supplies are further classified as to "extra priority," "priority," and "normal." With this new system a transport load may be assembled from records maintained by the Storekeeper of this building, whose office is in the main Supply Building.

During normal working hours, a civilian crew is used to load and unload transports. After normal working hours this task is performed either by civilian employees, whose hours of duty are staggered, or enlisted personnel under supervision of the Terminal Storekeeper.

The only available building for this terminal was Hangar #4, an old war-time hangar, which has almost served its usefulness and is in line for razing in the near future. A Project Estimate has been submitted for the construction on the flying line of a brick building which will be more suitable for this purpose.

It is expected that an additional number of new transports will be assigned this station in the near future, and likewise the shipment of Air Corps supplies will increase, due to the fact that contracts have been let with commercial contractors to deliver supplies to one of the continental Depots for subsequent delivery by air transport to the other Depots. When a shipment which is to be apportioned among the various Depots is received at the Fairfield Air Depot, the contract quota for the Fairfield Depot is inspected and placed in storerooms, the quota for the other Depots is stored temporarily in the Terminal. It is believed that the location of a building on the flying line for a freight terminal is the most efficient method of handling supplies delivered by air.

Coincident with the increase in transporting supplies by air has been the general increase in business in the Depot Supply Department of the Fairfield Air Depot. In contrasting the accumulated business from January to October, 1937, with the same period this year, the following increases have been noted:

Freight and Express tonnage in and out	42% increase
Material carried by other means	47½% "
Parcel Post	15⅔% "
Air Transport	117½% "
Number of shipments received and made	7.8% "

Recently the binning program was completed in the Depot Supply Department by the removal of the old obsolete type wartime bins and the construction of wooden bins of modern design, which are 10 feet high and 55 inches wide, with a ledge 36 inches from the floor on both sides. The hotel system of numbering is used, which provides flexibility in the numbering of bins. The master number for bins is taken from the numbers on concrete columns. A particular bin may be subdivided into four sections and identified with the alphabetical prefix "A", "B", "C" and "D". Small cleats and shelves have been provided in some bins which are removable in the event the entire space is required.

Only one article is stored in a bin or subdivision of a bin. The rear and side partitions of these bins are removable. In general, these bins have the majority of the features of metal bins with the exception that they are not fireproof.

The system of warehousing in use is that of storing one classification of property in one section of bins. As far as practicable supplies are stored in the numerical sequence of the catalogue or stock list. This is impracticable for large bulky articles such as chain hoists, cowling, vises, crank cases, etc., which are stored in racks opposite the aisle of the corresponding section of bins. Bins and racks have been painted white with black letters and cement paint has been applied to the floors.

Plans are in effect to concentrate the storage of propellers, engine accessories and aircraft accessories in one storeroom, which is in accordance with the recent classification change in the above property to Class 03. This will provide additional space in some storerooms, but will necessitate the construction of a few bins in the proposed department.

Due to the general increase in work, it has been found necessary to establish a new section in the office - that of raw stock, instruments, school supplies and miscellaneous equipment.

V-7892, A.C.

All of the above increase in accounting, warehousing and construction has been accomplished with no appreciable increase in permanent personnel. It is believed, however, that if shipments and receipts continue to increase, it will of necessity require the employment of additional personnel.

The problem of storage space in the Supply Building has become very acute with this increase in business, and it is anticipated that an additional Supply building will be required in the near future. It is believed the ideal location for the main Supply building is adjacent to the Engineering Factory Building, for engine spares, plane spares and very active property, permitting the more bulky and less active items to be stored in a distant warehouse. If the main Supply Warehouse were placed adjacent to the Engineering Factory Building a conveyor system and message tubes would be a future possibility.

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GUNNERY PRACTICE FOR AIR CORPS TACTICAL SCHOOL STUDENTS.

About 23 airplanes and a convoy of trucks, carrying 38 officers and 78 enlisted men departed from Maxwell Field, Montgomery, Ala., on October 26th for Eglin Field, Valparaiso, Fla., to participate in gunnery practice over the week end.

The officers, members of Section A of the Air Corps Tactical School, with the exception of Majors Otto G. Trunk, Ralph B. Walker, Oakley G. Kelly, James A. Mollison, Henry H. Reilly, Captain John N. Jones and Lieut. Austin A. Straubel, who traveled by automobile, proceeded to Eglin Field by airplane. With the exception of those accompanying the fliers as observers or passengers, the enlisted men traveled by truck and automobile. Both officers and enlisted men were scheduled to return on Sunday, October 30th.

Upon arrival of the personnel at Eglin Field, Major Warren A. Maxwell assumed the duties of Officer in Charge of the camp and Operations Officer, with Captain R.L. Easton as Engineering Officer; Captain F.G. Allen, Communications Officer; Lieut. Louis A. Gunther, Armament Officer, and Sergeant Dean, Line Chief.

Those piloting the ships to and from Eglin Field were Captains A.Y. Smith, Carl J. Crane, John H. McCormick, Walter G. Bryte, John P. Doyle, Jr., Alfred Johnson, Walter S. Lee, George W. McGregor, Frank J. Coleman, William C. Ritchie, D.R. Gibbs, E.K. Warburton, Donald F. Stace, Forrest G. Allen, R.L. Easton; Majors Fred Nelson, Ray G.Harris, William Souza, Frederick D. Lynch, E.P. Gaines, Lieuts. A.L. Moore, Stanley K. Robinson, L.F. Harman and Robert Choate.

Among the other officers, flying as observers, were Lieut. Colonel Edward M. Almond, Infantry; Major Donald L.Dutton and Captain Darwin Martin, Coast Artillery Corps; Major Harry Vitzthum, Signal Corps; Captain Gilman C. Mudgett,Cavalry, and Captain Frederick Gerhard, Chemical Warfare Service.

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BACHELOR OFFICERS' MESS AT RANDOLPH FIELD

The members of the Bachelor Officers' Mess at the Primary Flying Field at Randolph Field, Texas, constitute about as cosmopolitan a group as can be assembled at any Air Corps station.

The Philippine Army is represented by two student officers taking the course of flight training. The Nicaraguan Army has one of its officers pursuing the same course. A medical officer of the Cuban forces is attending the course offered by the School of Aviation Medicine. Naval officers of the Medical Branch, although not members of the Mess, are frequent visitors. Several of them are students at the School of Aviation Medicine.

The line branches are represented by officers from the Infantry, Field Artillery, Coast Artillery, Cavalry, Engineers and Signal Corps. In addition, the Medical Corps and the Medical Corps Reserve have representation in the Mess, as has the National Guard. Finally, bringing up in the minority, are the Air Corps and the Air Corps Reserve, with a total of 33 of the 134 members of the Bachelor Mess at this Air Corps station.

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New Class Starts Flying at Kelly Field

(Continued from Page 1)

flew a total of 4,836:05 hours during the month of October, 1938, as follows:

61st Squadron	1,680:00
62nd Squadron	973:50
63rd Squadron	1,227:35
64th Squadron	955:40
Total	4,836:05

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NEW RADIO EXPERIMENTS AT WRIGHT FIELD

Recent test flights at Wright Field, using the structure of the airplane as an antenna for radio communication purposes without additional wires, either fixed or trailing, have proved successful to the extent that it is believed the method can be made practical, declares the Wright Field Correspondent. This experimentation is of special interest in that it opens up possibilities for the elimination of the hazards due to the breakage and subsequent loss of antenna wires under icing conditions. It is also hoped that transmission and reception during periods of bad static will be possible using present channels of communication.

V-7892, A.C.

ADDITIONAL CONSTRUCTION AT RANDOLPH FIELD

The project involving the construction of two barrack buildings for housing Flying Cadets at Randolph Field, Texas, is progressing satisfactorily under the supervision of Captain Edwin V. Dunstan, Quartermaster Corps, Constructing Quartermaster. Colonel John B. Brooks, Commanding Officer of the Field, indicated on June 30th, last, a rectangular area parallel with First Street as the site for the barracks, which will locate the buildings at right angles to the two existing barracks, and Captain Dunstan broke ground on July 5, 1938, utilizing W.P.A. workers made available by the local relief authorities under an appropriation of $50,000 allotted by the Works Progress Administration through the War Department in Washington, for the purpose of constructing the foundations and the full basement up to and including the first floor structural concrete slab. The work above that level is being done by contract.

The preparation of plans and specifications were rushed to completion by the Quartermaster General, time being the essence for two reasons, namely: to give impetus to employment and commercial activity and particularly to provide quarters urgently needed for the increased classes of Flying Cadets.

The sum of $350,000 had been set up in the War Department for the project, and it was estimated that, together with the W.P.A. allotment of $50,000, two barrack buildings could be constructed from the available funds. Bids were accordingly invited on July 18, 1938, by the Constructing Quartermaster for the erection of either one or two buildings. The bid of $247,476.00 was accepted for the two buildings, the second building to be located parallel with First Street West and at right angle to the existing barrack building.

Each building will house 106 cadets. The structures are a two-story type, of concrete and steel, with cement corridor and paved tile porch, with tile roofs and full basements. Each building provides 53 bedrooms, 30 shower baths, 6 toilet rooms, and a hot water heating system.

In design, materials and construction, these buildings will be the same as the two existing barrack building except that toilet rooms and shower [illegible] will be revised and improved. The barracks on the west side of the Cadet Group will have a full size basement and conform somewhat to the basement of the East barracks, except the storage room will be on the south end of the barracks and suitably barred and made secure for the storage of ordnance equipment and supplies.

Parking space for 125 cars will be provided just south of "H" Street West, and between First Street West and the Cadet Swimming Pool.

Award was made to Christy-Baskett Company, San Antonio, Texas, on August 3, 1938, and work started on September 22, 1938. Time of completion is specified as follows: "200 calendar days from the date of the receipt of notice to proceed."

Favorable weather conditions have aided the contractor in making rapid progress in the work and, unless adverse conditions are encountered, it is expected that one barrack building will be ready for occupancy about April 10, 1939, and the other building about May 10, 1939.

The Commanding General of the 8th Corps Area notified the Commanding Officer of Brooks Field, Texas, that the extension of underground telephone plant to serve the two new Cadet Barracks was approved by the Chief Signal Officer, the project to be effected by the Post Signal Officer at Fort Sam Houston, Texas.

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STATUS OF WARRANT OFFICER APPOINTMENTS

Since the publication by the Office of The Adjutant General of the pamphlet, dated March 1, 1937, listing the names of 740 noncommissioned officers of the U.S. Army eligible for appointment to the grade of Warrant Officer, there have been 154 promotions, the latest one being received by a Master Sergeant of the Signal Corps on November 8, 1938. Technical Sergeant Edcil C. Maxwell, who was No. 146 on the list, was the last Air Corps noncommissioned officer to receive promotion to Warrant Officer.

Heading the Air Corps eligibles on the list is Master Sergeant Harvey H. Hewitt (No. 169) who for a number of years was on duty at Selfridge Field, Mich., and is now stationed in the Hawaiian Department. Master Sergeant Hewitt will probably receive his appointment as Warrant Officer sometime in February or March, 1939, basing this on the normal flow of appointments thus far. Below him are 101 other Air Corps noncommissioned officers, the first ten being --

182 Master Sergeant Charles C. Leiby
188 Master Sergeant Murton K. Morrill
190 Technical Sergeant William J. Riley
198 Master Sergeant Gervais J. Garner
205 Master Sergeant Harry Wilson
213 Master Sgt. Walter J. Johannsen
217 Master Sergeant James D. Mehegan
219 Staff Sergeant Jacob S. Brown
223 Master Sergeant Carlton P. Smith
235 Master Sergeant Thomas J. Kelly

FLYING IN FULL SWING AT RANDOLPH FIELD

Flying Cadets from every State in the nation, save two, are among the 332 student pilots now in training on the Primary Stage at the "West Point of the Air." They are divided, as follows: 118 student officers and 214 Flying Cadets. A few eliminations by the School of Aviation Medicine, due to inability to pass the physical examination, has threatened somewhat to thin the ranks, eight student officers and sixteen Cadets having been recommended for elimination. A few other Cadets are still awaiting the decision of the medical officers prior to their start of flight training.

A study of statistics relative to the new class of Flying Cadets shows that their average age is 23.7 years. This figure is slightly higher than the average over a period of years, it is the belief of the News Letter Correspondent, and he attributes this to to be partly due to the fact that many of the new class spent a year on active duty with line branches of the service as Reserve Second Lieutenants under the Thomason Act.

Meanwhile, on the Basic Stage side of Randolph Field, 190 embryo pilots are undergoing their training. This figure includes seven student officers and three foreign students. In addition, 21 of the Reserve Officers assigned to the Training Center for a special Refresher course have graduated from the PT-13's and are now at work mastering the BT-9's. They will be advanced on a proficiency basis to the Advanced Flying School at Kelly Field.

Much favorable comment has been heard from the Instructor Staff on the Basic Stage concerning the recent installation of "eyebrow" slots on the BT-9's. "The stall and spin characteristics have been greatly improved, and instruction work on this phase of training has been much facilitated," is the comment of the News Letter representative on the Basic Stage.

In connection with the "eyebrow" installation, the Station Engineering Officer reports that this work is 100% complete, and all BT-9's at Randolph Field are now equipped with this ingenious product of the Materiel Division.

As stated in a previous issue of the Air Corps News Letter, the "eyebrow" slots are of the fixed type rather than those which go into operation when approaching a stall. Affixed to the leading edge of each wing, directly in front of the ailerons, the slots protrude about three inches from the leading edge, and pilots flying planes equipped with them state that they offer little or no added resistance. Their function is to permit a smooth flow of air across the ailerons at low speeds, thus aiding in the more rapid recovery from stalls and potential spins.

MEDICAL OFFICERS GRADUATE FROM THE SCHOOL OF AVIATION MEDICINE.

The following-named medical officers, who have been pursuing the four months' basic course of instruction at the School of Aviation Medicine, graduated as Flight Surgeons on November 12, 1938, and were assigned to the station appearing after each name, viz:

Medical Corps, U.S. Army

Captain Clifford O. Bishop, Barksdale Field, La.
Captain Lester O. Crago, Maxwell Field, Ala.
Captain Emmert C. Lentz, Fort Bragg, N.C.
Captain Harold A. Myers, Kelly Field, Texas.
Captain Scott M. Smith, Lowry Field, Denver, Colo.
Captain James L. Tobin, Hamilton Field, Calif.
Lieut. James W.S. Stewart, Randolph Field, Texas.

Medical Corps, U.S. Navy

Lieut. Julius C. Early, USS Yorktown.
Lieut. (jg) Clifford P. Phoebus, Naval Air Station, Pensacola, Fla.
Lieut. (jg) Wesley L. Mays, Naval Air Station, Pensacola, Fla.
Lieut, (jg) Thomas Forwerda, USS Saratoga.
Lieut. (jg) Morrill H. Goodwin, Naval Air Station, Pensacola, Fla.
Lieut. (jg) Charles F. Gell, Naval Air Station, Pensacola, Fla.
Lieut. (jg) Charles F. McCaffrey, USS Enterprise.

Medical Corps, Cuban Army

Lieut. Francisco Hernandez D'Abrigeon, Cuban Army.

Two officers of the Medical Reserve Corps, Captains John S. Minnett, of Dallas, Texas, and Victor E. Frazier, of Kansas City, Mo., joined the class on September 30, 1938, for the six weeks' practical work, both officers having already completed the extension course prior to coming to the School. They graduated with the resident class as Flight Surgeons.

Brigadier General Barton K. Yount, Commanding General of the Air Corps Training Center, delivered a very interesting and inspiring address to the class, following which he presented diplomas to each of the students and added his personal congratulations and words of good cheer.

The introductory remarks were made by Lieut. Colonel C.L. Beaven, Medical Corps, Commandant of the School of Aviation Medicine. The invocation and benediction were delivered by Chaplain J.W. Westerman, of Randolph Field. A number of distinguished guests, relatives and friends of the student officers was present.

The present class makes the forty-

(Continued on Page 7).

AIR CORPS OFFICERS ASSIGNED AS STUDENTS AT COMMAND AND GENERAL STAFF SCHOOL.

The following-named Air Corps officers have been selected for detail as students at the Command and General Staff School, Fort Leavenworth, Kansas, for the 1939-1940 course:

Majors Samuel M. Connell, Mitchel Field, N.Y.

Majors James E. Parker, Elmer D. Perrin, Edmund P. Gaines, James A. Mollison, Randolph P. Williams, Captains James B. Burwell, Charles P. Cabell, James K. DeArmond, David R. Gibbs, Glen O. Jamison, Laurence S. Kuter, John H. McCormick, Donald F. Stace, Walter C. White, 1st Lieuts. Charles T. Arnett and Leonard F. Harman, Maxwell Field, Ala.

Major Edward W. Raley, Office of the Chief of the Air Corps, Washington, D.C.

Major Ned Schramm and Captain Frank H. Robinson, Langley Field, Va.

Major George P. Tourtellot, Detroit, Mich.

Captain Frank F. Everest, Jr., Schofield Barracks, T.H.

Captain Thomas M. Lowe, Columbus, Ohio.

Captain George McCoy, Jr., Selfridge Field, Mich.

Captain Russell A. Wilson, March Field, Calif.

1st Lieut. Reuben C. Hood, Jr., Nichols Field, P.I.

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School of Aviation Medicine Graduation

(Continued from Page 6)

eighth to graduate from the School since its establishment in 1919. In addition to the resident courses, the School also conducts a correspondence course for medical officers of the Organized Reserves and National Guard. There are 466 students enrolled in this course at the present time.

The staff of the School of Aviation Medicine is as follows:

Commandant: Lieut. Colonel C.L.Beaven.

Assistant Commandant and Executive Officer: Lieut. Colonel N.C. Mashburn.

Adjutant and Secretary: Captain W.H. Kernan.

Director, Department of Opthalmology and Otology: Major J.M. Hargreaves.

Director, Department of Psychology: Captain W.A. Carlson.

Director, Department of Aviation Medicine: Captain C.L. Leedham.

Assistant Director, Department of Aviation Medicine: Captain N.W. White.

Director, Department of Neuropsychiatry: Captain E.J. Kendricks.

All of the above-named officers, with the exception of Captain Kernan, are members of the Medical Corps of the Regular Army. Captain Kernan's commission is in the Medical Administrative Corps of the Regular Army.

LARGEST STUDENT OFFICER DETACHMENT STARTS TRAINING AT RANDOLPH FIELD.

The largest student officer detachment in the history of the Air Corps Primary Flying School at Randolph Field, Texas, is now undergoing training. The usual influx of recent graduates from the United States Military Academy in the October class was augmented by 23 Reserve officers taking the Refresher Course, also by five National Guard officers who are taking the regular one-year course at the "West Point of the Air." These, in addition to three foreign students, bring the total to 159 officers.

According to the News Letter Correspondent, recent graduates of the U.S. Military Academy who are now undergoing flying training at Randolph Field are inclined towards eccentricities. Lieut. Bertram Harrison attempted to raise a raccoon, and Lieut. Gabriel Russell was lately seen with a wild cat. Scooters and shot-guns have become objects of desire.

Bowling has become one of the favorite pastimes of the Detachment. Alleys were not available at West Point, and so the majority of officers are novices. In spite of this fact, many are becoming quite proficient, and a good bowling league may be organized.

The daily athletic period shows that company spirit and a certain amount of inseparable tendencies extends outside the Military Academy. Nearly every base ball team is composed of officers who have been in the same company together for the past four years. This continuation of the West Point association is especially noticed in the I and K Company teams.

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SENSITIVE ALTIMETER DEVELOPMENT

Much has appeared in the press recently about a new sensitive altimeter developed by the Bell Telephone Laboratories. An airplane, with the new instrument installed therein, arrived at Wright Field, Dayton, Ohio, on October 25th, for demonstration to officers and engineers of the Materiel Division and the Signal Corps Aircraft Radio Laboratory. The plane was a trimotor Ford. The pilot was Mr. P.G. Lucas, and those accompanying him as passengers were Messrs. J.A. Merquelin, E.L. Nelson, D.K.Martin, William Higgins, R.J. Zilch and F.H. Smith, all of whom are connected with the Bell Telephone Laboratories. No comments were released as to the efficacy of the equipment or its possible value to the Air Corps.

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2ND BOMB. GROUP IN FORT BRAGG MANEUVERS

On October 15th, the 2nd Bombardment Group, Langley Field, Va., completed two weeks' participation in the Joint Anti-aircraft - Air Corps Exercise held in the vicinity of Fort Bragg, N.C.

The work during the period was very intense for both flying and ground personnel. Many missions were executed day and night at high altitudes. The following letter from the Wing Commander is quoted:

"During the recent Joint Antiaircraft - Air Corps Exercises at Fort Bragg, North Carolina, from October 3-15, 1938, the 2nd Bombardment Group flew 375 hours on actual day and night missions in all kinds of weather, where the distance to the objective averaged 325 miles, making skillful navigation and the exercise of good judgment by combat crews imperative.

As the Commander of the 'Black Force,' which included the 2nd Bombardment Group, GHQ Air Force, I desire to commend the outstanding performance of the group, which was due to its leadership, spirit and all-around efficiency."

20th Bombardment Squadron: On October 15th, this Squadron completed a two-week period of participation in the Joint Anti-aircraft - Air Corps Exercise.

"Fortunately," says the News Letter Correspondent, "we were a portion of the Black Force, and as such did not change our base. All missions were of approximately four hours' duration, and when the majority of these were above twenty thousand feet, the operating personnel suffered slightly from fatigue. However, the ground crews had the real soiree when, after a night mission, returning around ten or eleven o'clock, they had to remove all night camouflage prior to an early morning mission. One hundred and four men from Mitchel and March Fields were quartered and rationed with the Squadron during the Exercise."

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The Headquarters and Headquarters Squadron of the 8th Pursuit Group, which returned from the Air Corps-Antiaircraft field exercise at Fort Bragg, N.C., on October 18th and 19th, did very little of the local flying in connection with the various problems, but by means of plotting boards and the civilian intelligence net, directed the 33rd and 36th Pursuit Squadrons, based at Maxton and Southern Pines, N.C., respectively, to many successful interceptions of the invading "Black" Bombardment, Attack and Reconnaissance. Much valuable experience was acquired by officers and men alike

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Mr. C.J. Stewart, Director of Civil Research and Production, British Air Ministry, visited Wright Field on October 19th.

FIELD TRAINING FOR 23RD BOMB. SQUADRON

Ten officers and 46 enlisted men of the 23rd Bombardment Squadron took off from Hickam Field, T.H., to spend five days of training on the auxiliary airport at Hilo, Hawaii.

Camp was pitched on the grounds of the airport, and a little more difficulty than usual was encountered in pitching the tents, due to the presence of coral rock in every place a tent stake was supposed to be driven. Picks were used to dig a hole that would hold the stake.

Ferry trips were made between Hilo and Hickam Field by this Squadron and the 50th Reconnaissance Squadron.

Ground familiarization trips were made by the officers to different parts of the island under the guidance of Major Beaton, who pointed out the values of the different sections to the newer officers in the Squadron who had not had a previous opportunity to become acquainted with Hawaii from the military standpoint. The facilities of the Military Rest Camp were inspected, and the military trails and all available facilities were noted.

The return trips were made with the help of the 72nd Bombardment Squadron, which furnished four B-18 airplanes, thereby making a total of twelve planes available. The residents of Hilo were treated to a sight of twelve planes lined up down the entire length of the airport.

The entire trip and time spent at Hilo constituted a welcome break in the regular routine, and the field exercise proved very instructive and beneficial.

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COMPETITIVE PISTOL SHOOTING

Since the discontinuance of Air Corps Regulation Pistol Shooting, the 46th School Squadron, Randolph Field, Texas, has nevertheless been active in competitive matches held on their own target range, which is located in the basement of their barracks.

Recently, the Squadron held its annual pistol and small bore rifle tournement. Corporal Norman G. Hower repeated as champion over a field of more than 20 competitors. Hower's aggregate total was 438. Corporals Charles Jones and Myron Lamparty placed second and third, respectively, with scores of 427 and 415. The matches featured slow and rapid pistol firing, while the rifle shooting included offhand, kneeling and prone firing.

The next tournament matches will be held in the Spring of 1939. This tourney will be sponsored by Major Stanton T. Smith, Squadron Commander, who each year does his share in promoting interest in the target range.

OBITUARIES

The whole Air Corps was shocked and grieved to learn of the death of Colonel Leslie MacDill, as the result of an airplane accident on the morning of November 9, 1938, at Anacostia, D.C. The accident occurred several minutes after his take-off from Bolling Field in a BC-1 airplane.

Accounts pieced together from numerous eyewitnesses indicate that something went wrong with the motor and that Col. MacDill tried first to get back to Bolling Field, and then with death staring him in the face he aimed his plane for a narrow space between two houses on S Street, a block away from the intersection of Good Hope Road and Nichols Avenue, Southeast. The plane cut down telephone and power wires, knocked down a pole, clipped off tree limbs and plunged to the ground, bursting into flames immediately thereafter. Colonel MacDill and his passenger, Private Joseph G. Gloxner, Air Corps, were instantly killed.

The death of Colonel MacDill leaves a gap in the Air Corps which will be hard to fill. He was one of the "Early Birds" in aviation, and those who knew him well realized his special ability, his highly analytical and mathematical mind, as well as his professional attainments. His sound conclusions and helpful advice were constantly relied upon.

Colonel MacDill was born at Monmouth, Ill., on February 18, 1889. Following his graduation in 1909 from Hanover College with an A.B. degree, and from the University of Indiana in 1911 with an A.M. degree, he was commissioned from civil life as a second lieutenant, Coast Artillery Corps, April 13, 1912. He served with the 6th Company, Coast Artillery Corps, from May 28 to December 8, 1912, and with the 122nd Company, Coast Artillery Corps, from December 10, 1912, until his detail in 1914 in the Aviation Section, Signal Corps. Upon the completion of his flying training at the Signal Corps Aviation School at San Diego, Calif., he was rated a Junior Military Aviator on July 2, 1915, which automatically advanced him to the rank of first lieutenant. He was promoted to Captain on May 15, 1917; to Major, Air Service, July 1, 1920; to Lieutenant Colonel, Air Corps, August 1, 1935, and to Colonel (temporary), Air Corps, on August 26, 1936.

Assigned to the 1st Aero Squadron upon his graduation from the Signal Corps Aviation School, he served with that organization from July to November, 1915, and with the 1st Company, 2nd Aero Squadron, in the Philippine Islands, from January, 1916, to May, 1917.

Upon his return to the United States, Colonel MacDill was on temporary duty in the Office of the Chief Signal Officer, Washington, D.C., for a brief period, and was then ordered to duty overseas. From October 11, 1917, to May 16, 1918, he was on duty with Headquarters, Air Service, Lines of Communication, as Materiel Officer, Training Department. He was then assigned to the command of the Aerial Gunnery School at St. Jean de Monts, France, and he was responsible for the organization and building of this school.

Returning to the United States in February, 1919, he was assigned to duty in the Office of the Director of Air Service, Washington, D.C., in the Aerial Coast Defense Section, Operations Division, Training and Operations Group. In addition to this duty, he served as a member of the Advisory Board from July 28, 1920, to September 26, 1920, when he was assigned to pursue a two-year course of instruction at the Massachusetts Institute of Technology, Cambridge, Mass. He graduated in June, 1922, with the degree of Doctor of Science, following which he was assigned to duty at McCook Field, Dayton, Ohio, as Assistant to the Commanding Officer.

On June 18, 1923, Colonel MacDill was assigned as Chief Engineer Officer of the Engineering Division, McCook Field, and, save for the period of one year - August, 1924, to July, 1925 - when he was a student at the Command and General Staff School at Fort Leavenworth, Kans., he occupied this position continuously until December, 1929. He assumed the additional duty of Chief of the Procurement Section on September 12, 1927, following the removal of the Air Corps Engineering Division from McCook Field to the New Wright Field and the changing of its designation to the Materiel Division. During the remainder of his tour of duty at Wright Field, he served as Assistant to the Executive Officer, Materiel Division, and at various times was Acting Executive Officer.

On September 2, 1930, Colonel MacDill reported for duty in the Office of the Chief of the Air Corps, Washington, D.C., and was assigned to the Plans Division. During the course of his duty in Washington he served on various boards of officers and committees.

Relieved from duty in the Office of the Chief of the Air Corps in the fall of 1933 to attend the Army War College, he graduated therefrom in June, 1934, and from the Naval War College, Newport, R.I., in June of the following year. He was then assigned as a member of the War Department General Staff in Washington.

Colonel MacDill is survived by his widow, Marilla Augusta MacDill, two daughters, aged 14 and 11, residing in Washington, D.C., and his brother,

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Wilfred E. MacDill, residing in Monmouth, Ill.

Funeral services for the deceased Air Corps officer were held on Saturday morning, November 12th, at the Arlington National Cemetery, at 11:30 o'clock. The Honorary pallbearers were Colonel Frank S. Clark and Lieut. Colonel Harvey C. Allen, General Staff Corps; Lieut. Cols. Floyd Galloway, Rosenham Beam, Majors Ennis C. Whitehead and Donald D. FitzGerald, of the Air Corps. Colonel MacDill's final resting place is adjacent to that of the late Air Corps Chief, Major General Oscar Westover. In addition to relatives, a large gathering of friends was present to pay their last respects. Many beautiful funeral wreaths were in evidence, indicating the esteem in which Colonel MacDill was held by his friends both in and out of the military service.

Private Joseph G. Gloxner, Air Corps, who was flying with Colonel MacDill, was a member of the First Staff Squadron, Bolling Field, D.C. He was single, and was born at Reading, Pa., May 28, 1907. At the date of his death he had completed five years and nearly three months' service with the Air Corps. He held the rating of Specialist, 6th Class. His father, Stephen Gloxner, of Reading, Pa., survives him.

The Air Corps extends its profound sympathy to the bereaved relatives of these two men who died in the service of their country.

Wright Field personnel wish to extend their sympathy to the family of Colonel MacDill. "He was with us for many years," declares the Wright Field News Letter Correspondent, "and his unswerving sense of fairness and sound technical ability won their meed of respect and esteem."

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SWISS AIRMEN VISIT MATERIEL DIVISION

Colonel Robert Fierz, Chief of the Technical Division of the Swiss Military Department, and a group of Swiss Army pilots visited the Air Corps Materiel Division, Wright Field, Dayton, Ohio, on November 3rd. The Swiss Mission is in the United States for the purpose of purchasing military airplanes and has been granted permission to fly and test such of the aircraft as have been released for export, are not government-owned, or being manufactured to apply on government contracts. Those accompanying Colonel Fierz were:

Colonel Damian Lang, Chief of the Subdivision for Aviation and Service of Transmission;

Lieut. Colonel Robert Ackermann, Chief of Section in the Division for Aviation - Pilot;

Lieut. Colonel Walter Burkhard, Director of the Military Airports - Pilot;

Captain Emil Schaetti, Technical Adviser of the Division of Aviation;

Captain Ruetschi, Test Pilot.

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NEW PHOTOGRAPHIC UNIT AT WRIGHT FIELD

Major Frederick W. Hoorn, Signal Corps reported for duty at the Air Corps Materiel Division, Wright Field, Ohio, on October 30th, to take charge of the Signal Corps Training Film Field Unit. This is a new unit, the purpose of which is to produce sound motion pictures for the training of personnel in various Air Corps functions.

Moving pictures recording test work, or produced for public educational or historical purposes, will continue to be handled by the Materiel Division Motion Picture Unit. Where subjects overlap, the two units will cooperate.

The new laboratory is in its beginning stages, and it will take some time, Major Hoorn says, to gather suitable personnel and the necessary equipment. When organized, however, the production of 20 reels a year will be its objective. All preparation of scenarios, editing, and other creative work is to be performed by the New Unit at the Materiel Division. Processing of films is to be done at the Army War College Photographic Laboratory in Washington. Release of film will be by the Chief Signal Officer.

In preparation for his new work, besides several years of photographic training, Major Hoorn spent eight months in Hollywood at the various leading motion picture laboratories.

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TRAINING METHODS TO UNDERGO STUDY

Major Isaiah Davies, Air Corps, Director of Flying at the Air Corps Advanced Flying School at Kelly Field, Texas, has been named as a member of a board of officers which convened in the Office of the Chief of the Air Corps, Washington, D.C., on November 7, 1938, to study training methods. Major Davies left Kelly Field, enroute to Washington, on November 5th, and expects to be away about a month.

During the absence of Major Davies, Major Harvey W. Prosser, Air Corps, Secretary and Public Relations Officer, will take over the duties of Director of Flying at the Advanced Flying School, in addition to his other duties.

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Two hundred and sixty students from the University of Cincinnati visited Wright Field on October 25th, last. This visit, which is an annual event for the aeronautical engineering students, is incorporated as part of the class curriculum.

PASSING OF DONOR OF MACKAY TROPHY

The death on November 12th, at his home in New York City, of Mr. Clarence H. Mackay, marked the passing of one of this country's outstanding citizens.

For a long time Mr. Mackay was a leader in the business and civic activities of New York City. He generously supported the arts and sciences and was a great philanthropist.

In the field of aviation his name was associated for over a quarter of a century with the Trophy bearing his name and which he donated in the year 1912 with the provision that it was to be awarded annually to Army officers making the most meritorious flight of the year. The huge silver cup bears the names of Army aviators whose outstanding flying achievements made the most notable contributions to the science of aviation since it was first awarded in 1912 to Lieut. Henry H. Arnold, Infantry, now Major General and Chief of the Army Air Corps.

Because the winners of the Trophy had nothing to show that their achievements had gained formal recognition, Mr. Mackay, in 1929, provided a gold medal for each of the flyers whose names adorned the Trophy, and continued to award medals each year thereafter. The medal bears the holder's name on one side and a representation of the Trophy on the other.

Mr. Mackay was born on April 17, 1874, in San Francisco, Calif. He was educated for the most part at Vangirard College in Paris and Beaumont College in Windsor, England, completing his studies at the latter place. In 1894, at the age of 20, he entered his father's office. Two years later he was elected president of the American Forcite Powder Manufacturing Company, serving for three years. In 1896 he became a director of the Postal Telegraph Company and the Commercial Cable Company, and a year later he was elected a vice president by each, a position which gave him the administrative control of operations.

Armed with practical knowledge, Mr. Mackay now directed all his energies toward extending these enterprises. The construction of a cable to the Orient had always been a great hobby with his father, but owing to various obstacles it was left to the son to carry out the project.

Eighteen months were consumed in constructing and laying the cable, the landing of the eastern end of which took place at San Francisco in December, 1898. During the entire period, Mr. Mackay gave his personal attention to every detail. The capital involved amounted to more than $9,000,000.

In 1928 the Postal Telegraph-Commercial Cables Companies and the International Telephone and Telegraph Corporation effected a $300,000,000 merger, Mr. Mackay, president of the Mackay system, and Sosthenes Behn, president of the International Telephone and Telegraph, pooling their interests. This operation merged telegraph, cable, telephone and radio systems on a scale never previously attempted. Shortly before this merger, Mr. Mackay had announced that his companies, the Postal Telegraph, the Commercial Cables and the Mackay Radio and Telegraph Company had acquired control of the high-powered transoceanic radio station at Sayville, L.I.

This acquisition of the Sayville station for Atlantic ship-to-shore service completed the radio system which was started by the Mackay companies in 1927, when they acquired the Federal Telegraph Company's properties on the Pacific Coast and started Pacific ship-to-shore service, with direct land wire connections. In the summer of 1931, Mr. Mackay, as president of the Mackay Radio and Telegraph Company, announced that two factories had been acquired in Newark, N.J., for the manufacture of an international radio broadcast receiver and of high-powered vacuum tubes for transmitting purposes, and for radio development and research work.

In 1930, in his annual report as chairman of the board, Mr. Mackay showed the wide expansion of radio communication the Postal Telegraph and Cable Corporation had developed, and reported that approximately $10,000,000 had been spent in one year in extending communication facilities throughout the world.

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NEWSPAPER FEATURES TRAINING CENTER IN ROTOGRAVURE SECTION.

A double page spread in the St. Louis, Mo., POST DISPATCH, in the rotogravure section of October 16, 1938, featured the life of a Flying Cadet at the "West Point of the Air" from the day he entered and started training on the Primary Stage until final graduation from the Advanced Flying School, Kelly Field, Texas, one year later.

The Photographic Department of Headquarters Squadron at Randolph Field and the Kelly Field Photo Department cooperated in furnishing the material.

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The News Letter Correspondent of the 49th Bombardment Squadron, Langley Field, Va., reports that during the last storm which hit the New England States, the XB-15 airplane was placed in the hangar for the first time. "Figure how a plane of 150 feet wing spread can be placed into a hangar that is only 110 feet wide," the Correspondent asks, and then he adds: "It can be done, because the 49th did it."

MANY VISITING PLANES AT RANDOLPH FIELD

Seventy-one visiting airplanes landed at Randolph Field, Texas, during the month of October, according to an announcement from Post Operations. Many of the new BC-1's, being ferried east from the factory, stopped overnight at the "West Point of the Air," 18 of them being cleared for points east.

Many Navy pilots, enroute either east or west, also made use of the servicing facilities at Randolph Field during the month.

The following is a partial list of visitors during the month and their home stations:

General A.H. Blanding, National Guard; Lieut. Colonel A. Tucker, National Guard; Lieut. Colonel K. Buchanan, Cavalry; Lieut. Colonel A.B. McDaniel, Majors T.W. Blackburn and J.F. Powell, Air Corps, Washington, D.C.

Colonel R.C. Rowell, U.S. Marine Corps, Anacostia, D.C.

Lieut. Colonel R.E. O'Neil and Major H.K. Ramey, Air Corps, March Field, Cal.

Majors E.M. Powers and S.M. Umstead, Air Corps, Wright Field, Ohio.

Captains D.T. Laubach and W.E. Whitson, Air Corps, Mitchel Field, N.Y.

Lieut. R.L. Poor, USN, North Island, New York.

Captain F.L. Fair, Air Corps, Marshall Field, Kans.

Captain A.C. George, Air Corps, Barksdale Field, La.

Captain S.W. Van Meter, Air Corps, Maxwell Field, Ala.

Major B.S. Thompson, Air Corps, Hensley Field, Texas.

Lieut. R.W. Ryder, Air Corps, Chanute Field, Ill.

Lieut. C.H. Leitner, Air Corps, Lowry Field, Colo.

Lieut. L.E. Hobbs, Air Corps, Nat'l Guard, Houston, Texas.

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MORE "BACON" CARTED HOME BY LT. DENSFORD

According to the Kelly Field Correspondent, 1st Lieut. Charles F. Densford, Air Corps, popular flying instructor in the Observation Section of the Air Corps Advanced Flying School, Kelly Field, still continues to "mow 'em down," having again made history by his ability in the use of shootin' irons.

Flying to Savannah, Ga., on a routine navigation training flight, and while on his authorized delay in that hospitable city, Lieut. Densford participated in the South Atlantic Pistol Championship held there. He was the lone Texas entrant, and while resting up from his flying trip he established a new world's record for .38 caliber revolvers in rapid firing. His score of 196 bettered the long standing, oft-tied high of his shooting partner, Tate, of San Antonio.

Three new records out of four matches on the first day of the "shoot" eclipsed Kelly Field's own Densford's creditable scores, until his shooting feat - which brought him up to a fourth place in the Georgia State Championship Match, just behind National Champion Al Hemming, of Detroit.

All of Kelly Field's shootin' fraternity have been awaiting the return of Lieut. Densford, being anxious to learn the results of the Regional Meet, as well as the identity of the winner of the coveted money pot and trophy. They were all feeling confident that Lieut. Densford would "bring home the bacon," - as usual.

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CONFERENCE ON TRAINING MATTERS

Brigadier General Barton K. Yount, Air Corps, Commanding General of the Air Corps Training Center, Randolph Field, Texas, recently flew to Washington, D.C., accompanied by Colonel Frank D. Lackland, Air Corps, Commandant of the Advanced Flying School, Kelly Field, Texas, for the purpose of a conference in the Office of the Chief of the Air Corps on training matters. The journey to Washington was made in a B-18 airplane, piloted by 2nd Lieut. Leroy A. Rainey, Air Corps, with General Yount acting as co-pilot. First Lieut. Norman L. Callish, Air Corps, accompanied the flight as Navigation Officer.

Upon the completion of his mission in the nation's capital, Colonel Lackland availed himself of five days' leave of absence. During the absence of General Yount and Colonel Lackland from the Training Center, Colonel Eugene A. Lohma Air Corps, Assistant Commandant of the Advanced Flying School, assumed command of that school and the Training Center.

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WAR DEPARTMENT SPECIAL ORDERS
Changes of Station

To Middletown Air Depot, Pa.: Majors William J. McKiernan, Jr., from duty in the Office of the Chief of the Air Corps, Washington, D.C.; and Samuel C. Eaton, Jr., from Bolling Field, D.C.; 2nd Lieut. Franklin K. Paul, from Panama Canal Department (previous orders in his case revoked).

To Bolling Field, D.C.: Captain Charles H. Deerwester from Middletown Air Depot.

To Hawaiian Department: Lieut. Colonel Rosenham Beam, from Office of the Chief of the Air Corps, Washington, D.C.

To Office of the Chief of the Air Corps, Washington, D.C.: Lieut. Colonel Hume Peabody, from duty as a member of the Air Corps Board, Maxwell Field, Ala.

To his home to await retirement: Major Romeyn B. Hough, who is relieved from duty in the Hawaiian Department.

V-7892, A.C.

GROUND SCHOOL INSTRUCTION AT RANDOLPH

Ground School instruction for both classes at the Air Corps Primary Flying School at Randolph Field, Texas, got under way on October 24th, the same day training was started on the flying lines. For the new class, ENGINES will be the first major hurdle to scale in ground school, but at the same time they will be taking courses in Mathematics, Military Hygiene, and Personal Equipment of the Pilot. For the upper class, the inevitable radio code, better known as "Buzzer," is supplemented by ground courses in Airplanes and Gunnery.

Numerous elaborate displays of working models of various types have been installed in the Engine Laboratory recently. They include:

(1) An operating display which includes an R-1820-45 engine, Hamilton controllable propeller and instrument panel, with instruments, as installed on the B-18 airplane. This equipment will be used for the first time in instructing the present lower class.

(2) A table display of a dynamic damper, which was furnished by the Wright Aircraft Corporation. This equipment is standard on all Wright Aircraft engines of recent design.

(3) A table display of an XR-1830-17 engine used to instruct students in the construction and operating principles of recent 14-cylinder engines.

(4) A table display of the 1,000 h.p. V-1710-7 Allison engine.

(5) An operating display of a liquidometer, an electric fuel level gauge, consisting of one tank unit, selector switch and dial change list.

(6) Operating and table displays of eclipse autosyn, consisting of transmitter and indicator.

(7) Operating and table displays of the Breeze and Cambridge fuel mixture indicators.

(8) A table display of propeller spinner and anti-icer.

(9) A table display of the NA-F7C carburetor.

(10) A table display of heater assembly, canvas hood type, used for engine preheating under winter conditions.

(11) A table display of the Curtiss constant speed propeller, electrically operated, complete with cockpit controls.

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Evidence of the popularity of the Air Corps as a branch of the service was recently demonstrated in the 11th Air Base Squadron, stationed at the Air Corps Primary Flying School at Randolph Field, Texas. During the month of October, this organization's record for reenlistments was one hundred percent, twelve men reenlisting to fill their own vacancies in the organization.

RANDOLPH FIELD CHILLED BY FRIGID BLASTS

The first of Texas' famed Northers swept down on Randolph Field on the night of October 22nd, when balmy weather was supplanted suddenly by frigid blasts. The thermometer slid downward 20 degrees during the night, and the following night it dropped to a low of 37 before starting upward again. The "Norther" was of short duration, and by the end of the month flying was again being carried on in summer flying suits.

In addition to forecasting from the synoptic weather map, the forecasters at Randolph Field are now plotting and drawing Isentropic Charts from data received from airplane meteorograph and radio meteorograph soundings made at selected stations throughout the United States and Canada. After studying the air-motions and physical properties of the upper-air, the forecaster is able to visualize where there will most probably occur certain meteorological activities, such as: cloudiness, precipitation, icing, thunderstorms and cyclonic or anti-cyclonic circulation. It has proven to be a valuable aid in forecasting so far, and it is believed that it will be a major part of forecasting in the future.

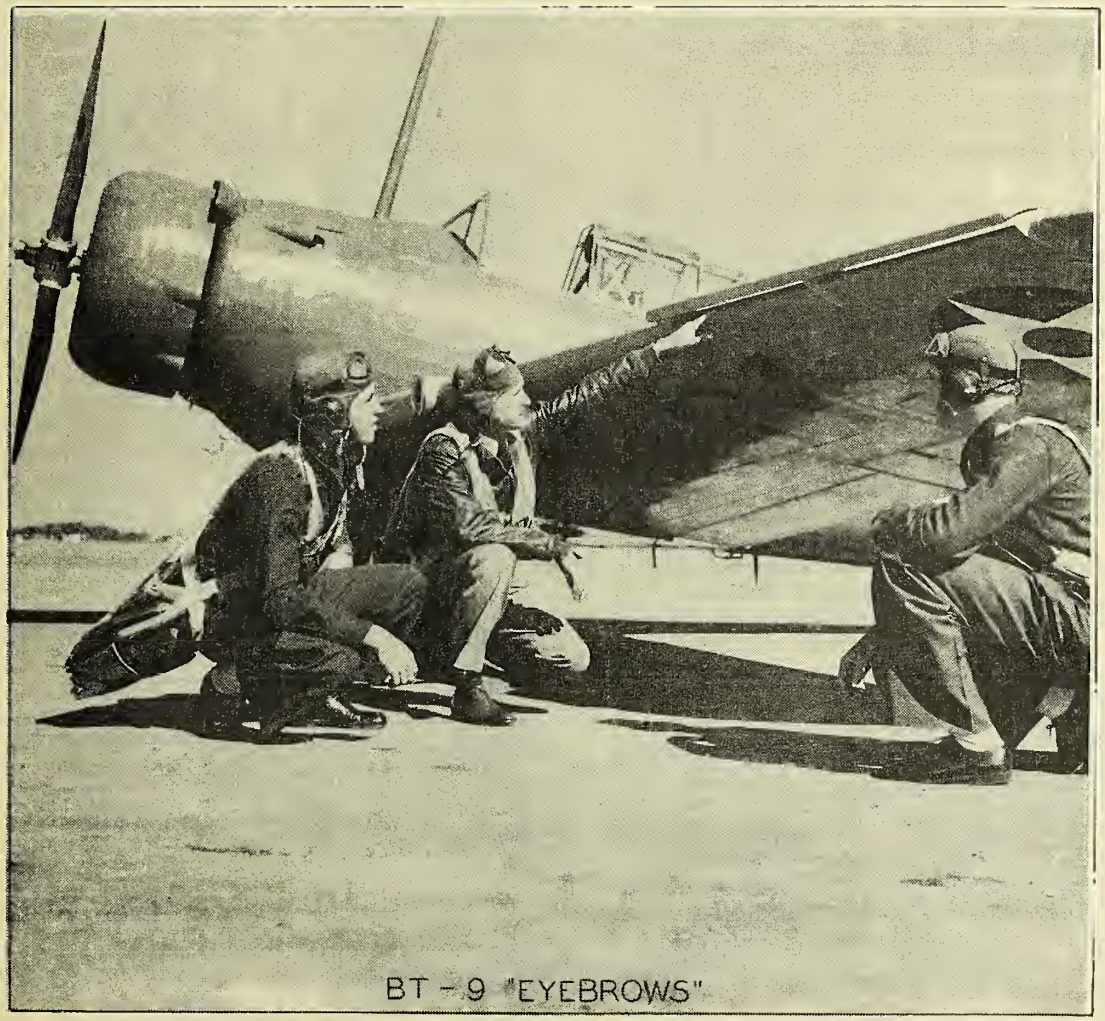
The Post Weather Officer gave a short talk to the new student officers who recently graduated from the United States Military Academy at West Point, N.Y. After the short lecture, they were conducted through the Post Weather Office. The office was grouped into four sections and a trained enlisted man was stationed at each section to explain instruments, map plotting, map drawing, forecasting, teletype maintenance and uses of the radio. The student officers seemed to take very readily to their first baptism on modern weather. They were invited to visit and familiarize themselves with the Weather Office in more detail at any time during their stay at Randolph Field.

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ELECTRICAL CONNECTORS FOR AIRCRAFT USE

Standardization of mating dimensions of electrical connectors for aircraft use was successfully accomplished at a conference held recently in the Equipment Branch of the Air Corps Materiel Division, Wright Field, Dayton, Ohio. These dimensions involved contact pin length and diameters, and the coupling thread. It is reported that necessary data will be prepared and used as a basis for revision of Air Corps Specification 32151. Two manufacturers, the Bureau of Aeronautics, Signal Corps and the Air Corps were represented at this conference.

AIR CORPS NEWS LETTER



BT - 9 "EYEBROWS"

ISSUED BY
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WAR DEPARTMENT
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VOL. XXI DECEMBER 1, 1938 NO. 23

NEWS LETTER

VOL. XXI AIR CORPS NEWS LETTER NO. 23

Information Division, Air Corps — December 1, 1938 — Munitions Building, Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard and others connected with aviation.

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THE N.A.C.A. STALL WARNING INDICATOR

By Captain Charles A. Ross, Air Corps

The trend in airplane design toward the monoplane type has given aviation airplanes which are much faster and of higher performance than the biplanes of yesterday. Nevertheless, certain of the monoplanes, particularly those of the low wing type, have inherent stall characteristics which may at times be dangerous, especially if the pilot inadvertently causes the airplane to stall close to the ground. If the wing tip stalls before the major portion of the wing, there is a tendency for the airplane to roll when the stall occurs. The unfortunate part of the wing tip stall is that loss of aileron control occurs and the pilot is entirely helpless to regain control before possible damage to the airplane may result. Wing tip stalls occur very suddenly, and there is a distinct absence of that "certain feel" which the pilot experiences just prior to stalling in the biplane or high wing monoplane type.

Flight tests have been in progress at Wright Field on a stall warning indicator developed by the National Advisory Committee for Aeronautics. These indicators which warn a pilot of the approach of the stalling condition in flight were installed for test purposes on North American BT-9 and BC-1 airplanes.

The operation of the N.A.C.A. stall warning indicator is dependent on the angle of attack of the airplane instead of air speed, as have been previous stall warning indicators. Angle of attack operation results in a true indication regardless of the airplane loading condition.

Near the leading edge of each wing, well out toward the tip, is mounted a pitot-static head. The pitot or dynamic opening is so placed as to be near the surface of the wing. Adjacent to it is located the static head. At the leading edge of the wing is mounted a sharp edge which causes a small portion of the wing to stall somewhat before the major portion, the shape or thickness of the sharp edge determining the margin of safety or the air speed differential between the local stall of the pitot-static head and the actual stall of the entire wing. Connected by tubes to the pitot-static heads are contacting devices which consist essentially of standard air speed bellows so arranged that their collapse closes contact points attached to them. Current from a battery passing through the electrical circuit actuates relays which in turn operate some method of giving the pilot warning, such as a vibrator on the rudder pedal, a horn or a signal light. It may be said that the air speed heads near the wing tips measure the flow of air over the surface of the wing. It has been found that the air flow over the wing is considerably higher than the indicated air speed of the airplane. When the angle of attack is increased to near the stalling point, the air flow over the wing decreases to zero with a very small decrease in the indicated air speed of the airplane. During an actual stall, an airspeed indicator connected to the stall warning device gives negative air speed readings, indicating that some air flow occurs from the trailing edge toward the leading edge of the wing.

The amount of warning necessary before the actual stall of the airplane takes place unquestionably varies with each particular design of airplane. For example, with an airplane which is inherently stable longitudinally, the pilot does not need as early a warning of impending stall as with an airplane which is unstable or which is exceedingly sensitive to control in pitch. It is important that the warning occur at a safe angle of attack before the stall, but the warning must not be given too frequently at times when the pilot knows he is perfectly safe, or the warning indication loses its value. Tests indicate that a warning given approximately ten to fifteen miles above the actual stall for any flight condition, whether power off or on, flaps up or down, seem to be satisfactory. Rapid changes in acceleration, affecting the airplane wing loading, such as the "pull-out" from a dive, steep banks, and the encountering of air bumps, will cause the warning signal to be given, even though the air speed of the airplane may be r

latively high. The warning, however, is a true one since additional accelerations increase the angle of attack while the air speed remains high.

The stall warning indicator will not only permit an airplane to be flown with a greater degree of safety, but also shows considerable promise as an aid to the pilot in the making of instrument landings. If the glide path of the airplane is maintained in such a manner during an instrument approach that the warning signal, in just starting to operate, is intermittently on and off, the pilot is relieved of the necessity of watching his air-speed indicator and may devote his attention entirely to the other instruments.

The question has arisen as to whether or not the installation of the edges which produce the local stall on each wing affect the flying characteristics of the airplane. The N.A.C.A. had made a full-scale wind tunnel study of an airplane with the indicator installed and with it removed, and found no apparent difference in performance. One theory as to why there is no apparent difference in performance is that the air flow effected by the edges returns to normal flow a short distance in the rear of the pitot-static heads.

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SUPPLY ACTIVITIES AT RANDOLPH FIELD

More than 1300 complete sets of flying equipment were issued by the Randolph Field Air Corps Supply during the past year, according to a recent survey of that activity. A total of 1,367 sets of equipment was handled, all of it going to the student officer classes and the Flying Cadets.

Considerable activity in all phases of their work is reported by the Air Corps Supply. Gasoline consumption has increased almost fifty percent, as compared with the similar period of last year, a total of 233,236 gallons being issued in September, 1938, as compared with 165,310 gallons issued in that month in the year 1937.

The number of airplanes on hand also has increased more than fifty percent in the past year, 345 being carried on the books on October 1, 1938, as compared with 201 on the same date last year.

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LINK TRAINER INSTRUCTION

Two enlisted men from each of the four School Squadrons of the Air Corps Advanced Flying School at Kelly Field, Texas, are undergoing a course of instruction on the Link Instrument Trainer, which instruction is being conducted by the 12th Air Base Squadron. The course includes operation and maintenance, and when it is completed it will qualify the men receiving the instruction to act as assistants to commissioned instructing personnel whose duties include giving this important phase of instruction to the large classes of students at the Advanced Flying School.

At present there is a total of 176 students in Class 39-A undergoing instruction at this school, this number including 4 Regular Army officers, 6 National Guard officers and 166 Flying Cadets.

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FIRE DESTROYS OLD-TIME BOMBER

While mechanics were performing a welding job on one of the engines of a B-4 airplane which was parked on the hangar line at Kelly Field, Texas, on November 18th, a sudden gust of wind caught sparks from the welding equipment and ignited the wing, which was completely destroyed. The fabric on the fuselage was also burned. The men on the line took steps promptly to extinguish the flames which threatened the old-time Bomber - one of the last two of that type remaining in active service at the Advanced Flying School, and they had everything under control when the station fire department arrived a few seconds after the alarm was given. Quick action on the part of the fire department personnel prevented further damage and destruction of property and possible injury to personnel.

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LECTURES ON ENGINES BY CAPTAIN SMITH

Captain George F. Smith, Air Corps, on duty at the Air Corps Materiel Division, Wright Field, Dayton, Ohio, arrived at Kelly Field, Texas, on November 20th, and delivered lectures on the following two days to the student body of the present class undergoing instruction at the Air Corps Advanced Flying School on "Modern Engines and Equipment." The lectures, which were very interesting and informative, were attended by a large representation of the permanent personnel of Kelly Field. Captain Smith returned to his home station on November 23rd.

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Brigadier General Barton K. Yount, Air Corps, Assistant to the Chief of the Air Corps, has been relieved from command of the Air Corps Training Center and from assignment and duty at Randolph Field, Texas, and assigned to duty in the Office of the Chief of the Air Corps, Washington, D.C.

DIVISIONAL ARTILLERY DEMONSTRATION

An excellent demonstration of the use of Divisional Artillery was the "show" put on by the Infantry School at Fort Benning, Ga., on the afternoon of November 14th for the benefit of the students in the current class of the Air Corps Tactical School.

The fast moving program of about two and one-half hours, in which the various types of artillery fire were demonstrated, gave the students an excellent picture to combine with the instruction which is being imparted in "Field Artillery" by Lieut. Colonel Harold H. Ristine, Field Artillery.

The entire class of 76 students made the flight to Fort Benning in the forenoon and were given lunch at the Officers' Club prior to the demonstration. The faculty was represented by Colonel Millard F. Harmon, Air Corps, Assistant Commandant; Lieut. Colonel Charles P. Hall, Infantry, Director of the Ground Arms Department; Lieut. Colonel Harold H. Ristine, Field Artillery; Major Alden H. Waitt, C.W.S., Chemical Warfare Instructor; and Lieut. Commander William H. Buracker, U.S.N., Naval Instructor.

Due to the shortage of airplanes at Maxwell Field it was necessary to secure the loan of a C-33 airplane from Langley Field, Va., to assist in the ferrying of the students.

This was the second of the annual Fort Benning demonstrations, and the third, which shows the "Battalion in Attack," is scheduled for the afternoon of December 2nd and will be a supplement to the Infantry course which has recently been completed under the direction of Major Allison J. Barnett, Infantry.

Tentative arrangements have also been made to send the class to Fort Knox, Kentucky, about December 9th, for a demonstration of mechanized cavalry. This demonstration will be similar to the one which was initiated a year ago. It is planned to fly to Fort Knox on the morning of December 9th, give the student officers an opportunity to ride the various types of equipment that afternoon and then witness a firing demonstration by the combined mechanized units on the morning of December 10th. The return flight will be made either that afternoon or the following day, as desired by the individual pilots. At this writing Lieut. Colonel John C. Mullenix, Cavalry, with Captain Robert C. Oliver, Air Corps, as pilot, are at present on a flight to Fort Knox to complete the necessary details for the flight and demonstration.

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PROGRESS OF INSTRUCTIONAT TACTICAL SCHOOL

Section B of the current class of students at the Air Corps Tactical School, Maxwell Field, Ala., were prevented by weather from completing gunnery practice at the Eglin Field gunnery base at Valparaiso, Florida, on November 4th and 5th. The Section flew to Valparaiso on November 3rd, but when very threatening weather blew in on Friday morning and was forecast to remain for at least two days, authority was given the commander to return the students at his discretion. The entire class returned the afternoon of November 4th. Operations at the gunnery camp were conducted under the direction of Major Warren A.Maxwell, Air Corps, Post Operations Officer. The fall trips of the Sections to the gunnery camp are preliminary for the entire week of instruction which is scheduled for next May.

With the completion of courses in Combat Orders, Maps and Photographs, Combat Principles, Basic Tactical Functions of Air Force, Infantry and Field Artillery, the class has become well accustomed to the routine of instruction and the fairly regular quizes and map problems. Many of the students are beginning to feel more at home now that instruction is being carried on in Observation and Pursuit Aviation and Anti-aircraft Defense, these being the first of the Air Corps subjects in the curriculum.

Classes were scheduled to close at 10:30 a.m. on Wednesday, November 23rd, for the annual Thanksgiving holiday, and were to be resumed the following Monday. This break is appreciated by the students, many having made plans to take short trips during this recess.

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FIRST PURSUIT GROUP ACTIVITIES

On November 12th, the 17th, 27th, 94th and Headquarters hangars at Selfridge Field, Mt. Clemens, Mich., were prepared in A-1 shape for an inspection of hangars by the Group Commander. Following the hangar inspection, an aerial review was flown, with 44 planes taking to the air, going into formation and passing a colorful review before the Group Commander.

The 27th Pursuit Squadron has been industriously pursuing considerable practice in ground gunnery at Camp Skeel, Oscoda, Micgigan, prior to actual ground gunnery. A series of discussions were held concerning the machine gun sights, and various problems which were to be encountered with the P-35 airplanes. For most of the pilots in the Squadron this marked the first actual gunnery practice, and they were all very well pleased with the results.

The 94th Pursuit Squadron is receiving some new P-36A Pursuit airplanes from the Curtiss airplane factory, and the personnel are taking great pride in shining these new "Sky Chariots."

IMPORTANT NEWS

Reprinted from "American Aviation"

In these days of fast-moving historic events it is easy to overlook happenings of far-reaching socio-political significance. The daily news reporter snatches bits of the stories of the hour but in the pressure of the routine news he is rarely able to portray impassively the broad import of the great changes taking place in the world today.

Six months ago the Czechoslovakian crisis was merely a scheduled event for the future. The President of the United States had his mind on many problems but it could not be said that aviation or air defense was really one of them. Civil aviation was still being directed by a single government bureau in a large federal department and commercial air transport was merely a nuisance factor in two other large governmental agencies.

But history moves fast these days. The Czechoslovakian crisis brought bitter realization to more than one European country that aerial force was the greatest single determining factor in the relationships of nations. Some have realized that for a long time, but it took this one crisis and the resulting shift in the balance of power in Europe to drive home this one dominant new factor in the world's history.

Aviation in the United States has entered a new phase of its advancement and development. The creation of the Civil Aeronautics Authority was not born of a European crisis, but its creation and organization is now playing a vital part in this nation's national defense - and the key to national defense is air defense.

Within six months all domestic civil aviation has been centralized in an independent federal agency; within six months the White House has changed from an attitude of mild concern about aviation to an attitude of vital concern; and within six months the military and naval aviation interests have become linked closely with commercial development. Within a short space of time the federal recognition of aviation has been raised from a minor to a major status.

In the extensive plans for expansion of our air defense, commercial aviation will benefit. The airways are to be completed, the airport system strengthened, and pilots and mechanics are to be trained in large numbers. The vast machinery of building a great air force cannot be set in motion overnight; results will not come quickly. But it is clear that we are entering a new era of expansion on all fronts that will place aviation out in the front. For the first time, really, aviation is getting a major attention in Washington. There has been much ballyhoo in the past about air defense and about the promotion of aviation, but the ballyhoo has exceeded by far the actual consideration these matters were getting from the sources of power in the capital.

The big news of today is that aviation is moving into high gear. It is no longer a side issue. It is a matter of vital national and international concern. The airplane has made itself felt in many ways and a few nations had the foresight to see it as the one dominating weapon. As one airline president said in a recent advertising message: "The new era of aviation is not coming. It is here."

- From AMERICAN AVIATION.

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COLONEL WEIR DEPARTS FROM PANAMA

Lieut. Colonel Benjamin G. Weir, formerly commanding officer of Albrook Field, sailed from the Panama Canal Department on October 28th upon the expiration of his tour of duty there. Until his departure, Colonel Weir was Executive Officer of the 19th Wing, and after a vacation at his camp in Maine he will proceed to March Field, Calif., for station. Ironically enough, Colonel Weir, who has honored so many departing officers with aerial salutes, was himself denied that honor when heavy rain, always unpredictable in Panama, closed in behind the take-off of the parading squadrons of Bombardment and Attack planes, cutting them off from transport and field alike. Unable to return home, the pilots beat the rain into Rio Hato by a scant margin, and there the crews were thrown upon the hospitality of the 24th Pursuit Squadron's gunnery camp for the night.

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PANAMA PURSUITERS RETURN FROM AERIAL GUNNERY PRACTICE.

The 24th Pursuit Squadron returned to Albrook Field, Panama Canal Zone, from the gunnery camp at Rio Hato on the morning of October 31st, after two weeks in the field. Despite an unusual amount of rainfall, all events went through on schedule, and the entire program was completed. Upon their return they found some shiny P-36's in their hangar. Santa Claus had come and gone!

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Colonel Rush B. Lincoln, Air Corps, has been relieved from duty in the Office of the Chief of the Air Corps, Washington, D.C., and assigned to station at March Field, Riverside, Calif.

Colonel Byron Q. Jones, Air Corps, has been relieved from duty as instructor at the Army War College, Fort Humphreys, D.C., and assigned to the Panama Canal Department.

Captain Alfred A. Kessler, Jr., Air Corps, stationed at Wright Field, Dayton, Ohio, has been assigned to the Office of the Chief of the Air Corps.

SIGNIFICANT AVIATION NEWS

Under the heading "White House Plans World's Greatest Air Force for U.S.," the semi-monthly publication AMERICAN AVIATION, for November 15th, states that "Most significant aviation news in many a moon is determination of the current Washington administration to build for the United States the world's greatest air force. Coincidentally the plans will be a boon to all commercial aviation. We quote from AMERICAN AVIATION:

"This new policy represents a conversion of President Roosevelt - a Big-Navy man - to airplanes as the greatest single need for national defense. The Munich Conference was the predominating reason for the present concern in the White House for air defense. Two men - Col. Louis Johnson, Assistant Secretary of War, and the President's son, James, are credited with being the two most influential persons in focusing the mind of the President on aviation.

"Second most significant aviation news is the fact that Civil Aeronautics Authority is being drawn into national defense plans in a close and intimate way. It appears clear that the United States will now follow the European method of coordinating civil aviation closely with the military and naval.

"It was also learned that the President had abolished the inter-departmental committee on aviation and is now relying solely on an unofficial 'air cabinet' comprised of the Army, the Navy and the CAA. Other agencies such as the State Department are included but not on the same par.

"With Louis Johnson as the ringleader and spokesman, many conferences have been held within the past month, with the CAA represented each time. The next few months will see numerous important national defense plans announced.

"The number of Army planes will be increased to a total estimated at 7,000 to 10,000, according to unofficial reports. It is significant that the White House has laid stress upon the Army, while nothing has been said about increasing the number of Navy aircraft.

"A program of training mechanics is to be undertaken at an early date, probably by the National Youth Administration with the aid of the Civil Aeronautics Authority.

"A broad training plan for pilots is in the wind with likelihood of federal aid or subsidy in some form. This subsidy may take the form of 'educational grants,' but the actual plan has not yet been completed.

"Those who have visited at the White House recently indicate that national defense is uppermost in the President's mind and that his chief interest is in the air force. To the industry this is encouraging news as the President has never been personally avid about aviation in any of its phases. The European situation with its complete surrender of Great Britain to the Fascist powers and consistent reports of Germany's large air force, is the principal reason for the new interest by the White House in the air.

"Any program that will be undertaken will of necessity be a long-term one. The Air Corps and the industry well know that airplanes can't be built in a short time and that if a goal of 7,000 craft is established, some years will be necessary for fruition. But there is no question now that the administration is determined to have an air defense second to none in the world.

"The national defense program will benefit every phase of civil aviation. Part of the program is the strengthening of the air transport system, while other parts will be the training of pilots and mechanics and the improvement of airports. The airways system will be completed at an early date. This will require man power and airplanes. But the coordination of civil aeronautics with the military is a new step in the American government and will tend to bring the civil phases into the sphere of influence of the military.

"Washington was no little interested when the President, on Oct. 28, visited the Naval Air Station at Anacostia to see some of the new Navy airplanes. With him were Army and Navy officials and members of the CAA.

"Chief attraction at Anacostia was the Navy's new $1,000,000 experimental long-range bomber constructed by Consolidated Aircraft Corp., San Diego, which had flown non-stop from San Diego in 13 hours and 55 minutes. At the controls of the huge 25-ton boat was Lieut. Comdr. Andrew Crinkley, who has been conducting acceptance tests. With a crew of 15 the flying boat is capable of flying 4,000 miles without refueling. Without landing gear equipment, the boat flew 2,300 miles across land.

"The Consolidated boat is powered with four 14-cylinder Pratt & Whitney engines. Its wing span is 115 feet and it measures 23 feet 3 inches in height. The President also viewed other types of planes and indicated that he will keep close watch on aviation in the future."

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Major George L. Usher, Air Corps, Chief of the Personnel Division, Office of the Chief of the Air Corps, Washington, D.C., was promoted to the grade of Lieut. Colonel (temporary) from November 20, 1938.

Captain Edward A. Hillery, Air Corps, was promoted to the grade of Major (temporary) from November 21, 1938.

Major Albert W. Stevens, Air Corps, for a number of years on duty at Wright Field, Dayton, Ohio, has been assigned to Hqrs. 2nd Corps Area, Governors Island, New York, for duty.

ACTIVITIES IN HAWAIIAN DEPARTMENT

During the latter part of October, the 23rd Bombardment Squadron was engaged in flying nightly cooperative missions for the 64th Coast Artillery (Anti-Aircraft). Flying at a high altitude without lights on predetermined courses, the B-18's of the Squadron gave the searchlight batteries good practice in tracking. Excellent radio contact enabled both units to cooperate to the utmost. On several missions officers of the Coast Artillery Corps flew in the tracking planes to observe the practice from the air.

The News Letter Correspondent states that as a result of the missions, it is expected that in the future both the Air Corps and Coast Artillery personnel will have a better insight into the problem of illuminating airplanes during night attacks.

The 23rd Bombardment Squadron conducted the Quarterly Load Test on October 28th with satisfactory results. A performance flight involving the use of oxygen, a bombing attack, machine gun practice and a communications check were incorporated in the mission.

A strenuous two-week period of maneuvers by the 4th Reconnaissance Squadron with the Coast Artillery was on the program for the month of November, the operations involving a series of day and night missions to develop and test methods of attack and defense. This maneuver period was to be followed by two weeks of demolition bombing practice.

The 31st Bombardment Squadron during the past two months limited its flying activities to the minimum requirements, devoting most of its energies to the construction of temporary buildings for mess and recreational facilities. At this time all of the scheduled construction is well under way, and the job should be completed during the month of December, provided the weather and the supplies on hand permit. "Tent City" at Hickam Field is beginning to blossom forth with a new growth of bermuda grass which should tend to beautify the scenery to a considerable extent.

With the assembly completed on four B-18 airplanes, the 50th Reconnaissance Squadron of Luke Field finally entered into select company with, as the News Letter Correspondent puts it, real "honest-to-gosh" airplanes to fly. Under the supervision of Captain J.R. Anderson, Squadron Engineering Officer, the assembly was completed rapidly in spite of a Keystone environment. For the first time in several months, the Squadron is now able to carry out tactical flying.

October was a very busy month for the 72nd Bombardment Squadron, with heavy schedules daily in bombing and gunnery training. This training is well under way to being completed.

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79TH SQUADRON'S FIRST MARINE DISASTER

Lieut. "Skipper" Woolams, owner of an 18-foot sailboat, while giving his crew a work-out on Cross Lake one windy afternoon in November, ran into difficulties with cross winds and the boat capsized in the middle of the lake. Lieuts. Chick and Marett began swimming toward shore for help, while Lieuts. Ferguson and Woolams upheld the tradition of the high seas and stayed with their ship.

Later on in the evening, another boating party, sighting the disabled sailing craft, rescued the two mariners clinging desperately to its sides, also Lieut. Marett, who was found about a hundred yards from shore in a very exhausted condition. Lieut. Chick had finally succeeded in reaching the mainland, after shedding the greater portion of his attire in the icy waters of the lake, and was found struggling along toward civilization on cramped legs, still intent upon finding help.

The News Letter Correspondent states that, although there is a marked lack of enthusiasm on the subject of sailing among the junior officers of the 79th Pursuit Squadron, Barksdale Field, La., since the above incident occurred, "we are nevertheless very proud of our true sons of the 'Briney deep.'"

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MORE MEDALS FOR LT. DENSFORD'S COLLECTION

First Lieut. Charles F. Densford, Air Corps, returned to Kelly Field, Texas, on November 9th, after establishing a new world's record for .38 caliber revolvers in rapid firing at Savannah, Ga., as reported by the Kelly Field Correspondent in the previous issue of the Air Corps News Letter.

Enroute to Kelly Field, Lieut. Densford, who participated in the matches held in that fairest of southern cities while on a routine navigation training flight, was taken ill at Fort Benning, Ga., and put to bed at the Station Hospital until he recovered sufficiently to fly his plane back to his home station. Upon reporting, he proudly displayed some eight medals he captured at the meet and, above all, was full of praise of the hospitality extended him by the good people of Savannah, who had charge of conducting the South Atlantic Pistol Championship matches and which, according to Lieut. Densford, were a decided success.

Meriting particular praise, according to Lieut. Densford, was Captain J. J.

(Continued on Page 11).

ACTIVITIES AT RANDOLPH FIELD, TEXAS

The Primary Stage at Randolph Field, the "West Point of the Air," starting the October class with 333 student pilots who reported to the line for training, has soloed almost one-half of the class - 150 to be exact - with the only accident being a bent axle. With the class flying time average at nine hours, this large number of soloes is considered outstanding. The Primary Stage reports that two days have been lost due to weather.

Meanwhile, on the Basic side of the field, soloing the BT-9's is a thing of the past for the student pilots. It is expected that instrument training, as well as night flying, will be started in the near future in order that a portion of this work may be completed before the Christmas holidays. Praise continues to come in for the "eyebrow" slots recently installed on all Basic trainers at Randolph Field. (See cover page).

Many Flying Cadets at Randolph Field financed their own college careers to obtain the necessary educational requirements for admission. They have raised the necessary educational funds by various means, but few of them have been more unusual than the method employed by Cadet R.B. Boyce, of New York City, who gave up his own life's blood in order to fly for his country. Cadet Boyce replenished his exchequer by acting as a professional blood donor.

First Lieut. Frederic H. Miller, Jr., Air Corps, was detailed to duty with the Academic Department on November 1, 1938. Lieut. Miller is considered especially qualified for this detail in view of his educational and military attainments, having graduated from Purdue University with a B.S. degree in Electrical Engineering in 1932, and from the Air Corps Training Center in October, 1933. Since entering the Army as a Flying Cadet on October 8, 1932, with the exception of three days which intervened between details to active duty while a Reserve officer, Lieut. Miller's service with the Air Corps has been continuous.

Captain Guy B. Henderson, Air Corps, the instructor in Air Navigation, has received orders to proceed to the Materiel Division, Wright Field, Dayton, Ohio, and procure data on recently developed instruments, which data will supplement the texts used in the navigation course at the Primary Flying School.

Telephones will be installed at the three outlying airdromes of the Primary Stage at Randolph Field, according to an approval recently received from the War Department. The three fields in use by the Basic Stage will not be so equipped, since there are radio facilities thereat. Rights of way for these telephone lines have been tentatively secured from the numerous property owners. The installation of telephones at these fields is deemed necessary in case of emergency, as well as for the handling of routine business during flying training.

Bexar County, Texas, State Highway Department; the M-K-T Railroad, Texas and New Orleans Railroad, as well as many private owners, all were involved in the securing of the right of way by the Randolph Field Quartermaster's Office.

Model airplanes are all the rage in the Student Officers Detachment at Randolph Field. "Kits" are purchased with much regularity by the student pilots, who spend much of their spare time in the construction of the models. For the price of a dime, if one is lucky, after innumerable hours of slivers, cement and general cussing, a real flying model is produced. If, however, as often happens, a "crack-up" mars the initial flight, another "Kit" is purchased and the task is started all over again.

Captain Bernard A. Bridget, Air Corps, was assigned to the 52nd School Squadron and joined it on November 1, 1938. In addition to his duties as Basic Stage Commander, he was detailed as Squadron Adjutant.

The second real Norther of the season swept down on Randolph Field on the afternoon of November 6th, when the thermometer dropped 40 degrees in seven hours, according to the Post Weather Station. A low of 28 was reported during the cold snap that sent all flying personnel into winter equipment for the second time.

Extensive research is being carried on by the Post Weather Office personnel concerning fog formation. The research covers the relationship of the temperature and dew-point of a wet or dry surface on a cloudy or clear day. Two charts are being drawn up, one showing the temperature and dew-point on a cloudy day with a wet or dry surface, and the other showing the temperature and dew-point on a dry day, with a wet or dry surface. This is slow and tedious work, but it is believed that the results shown from these charts will be well worth the time and trouble.

Lieut. Don Zimmerman, Post Weather Officer, and Private 1st Class Spikes, Student Forecaster in the Post Weather Office, made an extended cross-country flight to Patterson Field, Ohio, on official business. They photographed va-

(Continued on Page 8).

HARMON TROPHY AWARDED 79th SQUADRON

On November 12th, each member of the 79th Pursuit Squadron, Barksdale Field, La., was very proud to receive the Harmon Efficiency Trophy, which is awarded each calendar year to the most efficient squadron at Barksdale Field on the following factors: Maintenance of airplanes; conduct of T.R. 440-40; completion of War Department (GHQ) Training Directive; maintenance of barracks and grounds; appearance of personnel; airplane accidents; forced landings; efficiency of airplane maintenance; venereal rate and Court-Martial rate.

This Trophy was awarded by the business men of Shreveport, La., in honor of Colonel Millard F. Harmon, former Commanding Officer of the 20th Pursuit Group, and it was presented to Captain Thayer S. Olds, Commanding Officer of the 79th Pursuit Squadron, by Brigadier General Frederick L. Martin, Commanding the Third Wing, GHQ Air Force, in the absence of Major General Frank M. Andrews, GHQ Air Force Commander, who was unable to attend the presentation ceremonies as had been planned.

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INSIGNIA FOR 55TH PURSUIT SQUADRON

For the first time since its inception as an active unit in November, 1925, the Squadron insignia of the 55th Pursuit Squadron greets the eye of the onlookers from the sides of its planes.

The insignia as approved is described as follows:

On a yellow disk bordered in blue, placed in saltire and interlaced with a blue annulet a winged arrow point up and winged sword point down, both black and that portion on the yellow border. The yellow disk and blue border represent the sun and sky, and the winged arrow the fast rate of climb of a plane starting into the sky, passing through the sun's rays and again into the sky. The winged sword symbolized power and destruction, and with the point placed downward denotes the pursuit plane's method of launching an attack. The annulet interlaced with the sword and arrow produces a fret, which signifies unity. The colors are those of the Air Corps.

As a result of an unsatisfactory report, the 55th Pursuit Squadron recently received authority to change squadron identification color from white to blue. This change was requested due to the fact that all new planes are aluminum in color, making the white nose cowlings show up very poorly in contrast. Letter from the Chief of the Materiel Division, dated November 12, 1938, states that Technical Order 07-1-1 is being revised to authorize the changes.

77TH SQUADRON RECEIVES LUKE TROPHY

The Frank Luke Memorial Award, which is presented annually to the Pursuit squadron of the GHQ Air Force with the highest scoring average in aerial gunnery, was presented to the 77th Pursuit Squadron, 20th Pursuit Group, GHQ Air Force, stationed at Barksdale Field, La., on November 5, 1938, by Brigadier General Frederick L. Martin, Commanding the Third Wing, GHQ Air Force.

This is the second consecutive year that the 77th Pursuit Squadron has won this coveted honor.

Congratulations are in order for Lieut. Cecil P. Lessig, of the 77th Pursuit Squadron, winner of the Flournoy Harris Award, given in recognition of the highest individual gunnery score in the 20th Pursuit Group.

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RECRUITING DRIVE FOR KELLY FIELD

As a result of the intensive recruiting drive made by the various recruiting agencies at San Antonio and adjacent cities and posts, all vacancies in the enlisted ranks of Kelly Field, Texas, have been filled. Kelly Field was allotted an increase of 100 enlisted men during the month of September, and all vacancies were filled during the first week of November, bringing the enlisted strength of the Air Corps Advanced Flying School to 1079. Most of the men who were enlisted and assigned to the various organizations have been receiving recruit instruction, and as they become qualified they are being turned to duty to help the man-sized job of maintaining the 156 various type airplanes now assigned to Kelly Field.

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Randolph Field Activities
(Continued from Page 7)

rious types of cloud formations enroute, mainly the type of clouds found in the vicinity of a warm or cold front. Since cloud formations are a distinct advantage to the forecaster, these photographs should be of great value to the Post Weather Office.

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During two weeks in November, the Transient Aircraft Hangar, 11th Air Base, Randolph Field, Texas, serviced 66 Army airplanes, including one flight of six.

The Aero Repair completed repairs on 13 airplanes during this period. The types of airplanes repaired were as follows: 4 BT-9's, 1 PT-3 and 8 PT-13's.

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OBITUARIES

A lamentable airplane accident at La Grange, Ga., on the night of November 18th, exacted a toll of eight lives, the dead being:

1st Lieut. James W. Stewart, Medical Corps, Randolph Field, Texas.

2nd Lieut. Robert Kirkland Black, Air Corps, Mitchel Field, N.Y.

2nd Lieut. John D. Madre, Air Reserve, Mitchel Field, N.Y.

2nd Lieut. Robert R. McKechnie, Air Reserve, Mitchel Field, N.Y.

2nd Lieut. Allen M. Howery, Air Reserve, Mitchel Field, N.Y.

Staff Sergeant Harry T. Jones, Mitchel Field, N.Y.

Corporal Jerry E. Galloway, Hensley Field, Texas.

Private Joseph J. Nanartowich, Mitchel Field, N.Y.

Six of the eight men listed above were killed at the time of the crash. The two who temporarily survived the crash were Lieut. Madre and Private Nanartowich. The latter died in a hospital at La Grange shortly after he was taken there, and Lieut. Madre, also taken to a hospital at La Grange, died on the morning of November 22nd.

The Bombing plane, piloted by Lieut. Black, was enroute from Mitchel Field to Maxwell Field, Ala. The flight was of a routine nature. The trip was without incident until a wind and rain storm were encountered over Georgia.

Major Warren A. Maxwell, Air Corps, of Maxwell Field, Ala., stated that he obtained a description of the crash from Private Nanartowich before he died.

"We were following the lighted airway from Atlanta to Montgomery, flying under the overcast," Major Warren said the dying man told him. "Without warning, we hit an air bump which dropped us between 100 and 200 feet. Then we crashed into the tree tops. The ship broke into flames as it struck. Several of the injured were thrown about 150 feet from the wreckage."

Lieut. Stewart was born in New York City on January 26, 1909. He received his B.S. degree from the College of the City of New York in 1931, and his M.D. degree from Cornell University in 1935. He was commissioned a first lieutenant in the Medical Corps, U.S. Army, June 2, 1937.

Lieut, Stewart graduated from the Army Medical School in 1937, and the Medical Field Service School, Carlisle, Pa., in 1938. For several years he had been quite interested in aviation and had progressed to such an extent that he was granted a pilot's rating by the U.S. Department of Commerce. Following the completion of his duties at Carlisle, he was assigned to the School of Aviation Medicine, Randolph Field, Texas, for the course beginning July 15, 1938, and he was graduated from this institution on November 12, 1938. His last assignment was the Station Hospital, Randolph Field At the School of Aviation Medicine he was considered at outstanding student and was referred to in their estimate of him as alart, aggressive, very cooperative, conscientious, resourceful and diligent.

He is survived by his mother and wife. In his death both the Medical profession and the Army lost the services of a valuable and stimulating member.

Lieut. Black was born at Brooklyn, N.Y. June 7, 1907. After graduating from grammar school and high school, he attended the Sewanee Military Academy for one year and Amherst College for 2½ years.

Appointed a flying cadet in the Army Air Corps, he graduated from the Primary Flying School, Brooks Field, Texas, June 29, 1928, and from the Advanced Flying School, Kelly Field, Texas, October 20, 1928. He specialized in Pursuit aviation. Rated as Airplane Pilot and appointed a second lieutenant in the Air Reserve upon his graduation from Kelly Field, Lieut. Black was assigned to extended active duty with the 1st Pursuit Group at Selfridge Field, Mt. Clemens, Mich.

At his own request, Lieut. Black was relieved from active duty on April 20, 1939, in order to accept a position in commercial aviation as a flying instructor. During the course of his career in commercial aviation, he was a flying instructor with the Chinese Army, and later was employed as a pilot by a commercial aviation company in Manila, P.I. On several occasions he served short periods of active duty with the Air Corps under his status as a Reserve officer.

While in Manila, Lieut. Black passed the examination for appointment in the Air Corps, Regular Army, and he was commissioned a second lieutenant on October 1, 1936, and assigned to duty at Mitchel Field, N.Y. He qualified as a Dead Reckoning Navigator with the GHQ Air Force.

Lieuts. McKechnie, Howery and Madre, classmates at the Air Corps Training Center, graduated from the Advanced Flying School, Kelly Field, Texas, on October 5, 1938, when they were given the rating of "Airplane Pilot," commissioned second lieutenants in the Air Reserve, and assigned to extended active duty at Mitchel Field, N.Y. Lieut. McKechnie specialized in Pursuit Aviation, and Lieuts. Howery and Madre in Attack Aviation.

Lieut. McKechnie, a native of Cleveland, Ohio, where he was born on June

10, 1915, graduated from grammar school and high school in his native city and, prior to his appointment as a Flying Cadet in the Army Air Corps, was a student for two years in the college of mechanical engineering, Ohio State University. He is survived by his mother, Mrs. Elizabeth McKechnie, of Cleveland, Ohio.

Lieut. Howery was born at Russellville, Tenn., November 13, 1910. He graduated from Morristown, Tenn., High School and from the University of Tennessee, receiving from the latter institution a BS degree in Electrical Engineering. In civil life he was employed as radio engineer by several broadcasting stations. He is survived by his parents, Mr. and Mrs. Lewis Bryant Howery, of Russellville, Tenn.

Lieut. Madre, a native of Dresden, Tenn., where he was born on October 18, 1914, graduated from grammar school and high school, and in 1937 from the University of Mississippi with a BA degree. He is survived by his mother, Mrs. Frank H. Rayhorn, residing in Memphis, Tenn.

Staff Sergeant Harry T. Jones was born on September 24, 1902, at Montrose, Calif. He enlisted in the Air Corps on February 2, 1926, and was assigned to the 28th Bombardment Squadron, 4th Composite Group, at Nichols Field, P.I. Upon his return to the United States, he joined the 11th Bombardment Squadron, 7th Bombardment Group, on May 20, 1929, at March Field, Calif., and on June 24, 1932, he was transferred to the 32nd Bombardment Squadron at that field. Returning to the Philippines for another tour of foreign service, he joined the 3rd Pursuit Squadron at Clark Field on December 2, 1934. On July 3, 1937, he joined the 99th Bombardment Squadron at Mitchel Field, N.Y.

Sergeant Jones is survived by his widow, Mrs. Dawn E. Jones.

Corporal Jerry E. Galloway was born on December 7, 1915, at Sulphur Springs, Texas. He enlisted at Kelly Field, Texas, on February 27, 1936, and was assigned to the Advanced Flying School Detachment. On July 1, 1937, he was transferred to the 3rd Weather Squadron, with station at Hensley Field, Dallas, Texas. He is survived by his father, Mr. J.C. Galloway, of Sulphur Springs, Texas.

Private Joseph J. Nanartowich was born on July 19, 1914, at Hancock, Mich. He enlisted at Newburgh, N.Y., March 5, 1937, and was assigned to Base Headquarters and Second Air Base Squadron, Mitchel Field, N.Y. Assigned as student at the Air Corps Technical School at Chanute Field, Rantoul, Ill., he graduated on July 15, 1938, from the Radio Repairers and Operators course, and then returned to duty at Mitchel Field. He is survived by his mother, Mrs. Ursula Nanartowich, who resides at Highland Falls, New York.

The Air Corps extends its deep sympathy to the bereaved relatives of these officers and enlisted men who died in the service of their country.

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NEW HEADS OF AIR CORPS TACTICAL SCHOOL

Two seasoned Air Corps executives, both of whom served overseas during the World War, recently assumed charge of the Air Corps Tactical School at Maxwell Field, Ala.

Colonel Millard F. Harmon, Jr., former Assistant Commandant, became the Commandant, succeeding Colonel John H. Pirie, and Lieut. Colonel Donald Wilson, Director of the Department of Air Tactics and Strategy, became the Assistant Commandant.

Colonel Harmon recently completed a tour of duty in the Hawaiian Department. Prior to that time he commanded the 20th Pursuit Group at Barksdale Field, La.

Lieut. Colonel Wilson has been at Maxwell Field since August 15, 1936, and was transferred to this post following his graduation from the Command and General Staff School, Fort Leavenworth, Kansas.

The assignment of Colonel Harmon as Commandant relieved Colonel Pirie of double duty, for he had been acting as the head of the Tactical School in addition to being chairman of the Air Corps Board.

Colonel Harmon's military career dates from his entrance to West Point and his subsequent graduation therefrom in 1912, when he became a second lieutenant of Infantry. He was given assignments in Minnesota, Kentucky, Texas and the Philippines. In 1915, while with the 27th Infantry, he was attached to the Aviation Section, Signal Corps, to undergo flying training at the Signal Corps Aviation School at San Diego, Calif., from which he graduated in 1916.

Later he was attached to the First Aero Squadron with the Punitive Expedition into Mexico. In 1917, he was one of three U.S. Army officers to attend French schools with a view to acquiring knowledge of methods employed in France for the training of aviation personnel.

During the World War, Colonel Harmon was on duty in connection with the inspection and laying out of landing fields and, in addition thereto, he performed various staff duties. For a brief time he commanded the First Air Depot, and later served as pilot with French Escadrille No. 65. For his service with this organization he was highly commended by the commander of the French Combat Squadron No. 2, who re-

ported that he (Harmon) "insisted on taking part in all of the patrols of that Escadrille and had made, besides, many voluntary patrols, thus setting the best example of enthusiasm and scorn of danger."

For his meritorious service overseas the French government awarded him the Croix de Guerre, with Star.

After the war, Colonel Harmon served in many important positions, among them being thoseof Chief of the Flying Branch, Schools Section, Office of the Director of Military Aeronautics; Assistant Chief of the Training Section, in charge of heavier-than-air training; Commanding Officer of the First Provisional Wing, Mineola, L.I., New York; Commanding Officer of France Field, Panama Canal Zone; Air Officer, Panama Canal Department; Commanding Officer of Bolling Field, D.C.; member of the War Department General Staff; instructor at the Command and General Staff School, Fort Leavenworth, Kansas; Commanding Officer of the Primary Flying School at March Field, Calif.; Commanding Officer of the 20th Pursuit Group at Barksdale Field, La., and Commanding Officer of Luke Field, T.H.

Colonel Harmon is a graduate of the Command and General Staff School and of the Army War College.

Lieut. Colonel Wilson, a native of Hiner Hill, W. Va., became interested in aviation in his boyhood days. Some years before the war he became the center of interest in his community when he built a large biplane glider in which he made hundreds of flights. His assistants, who needed no urging, were members of a Boy Scout troop.

After attending the Baltimore Polytechnic Institute for three years, Colonel Wilson, for six years thereafter, was engaged in securing data and making maps of all kinds used in railroad work, including surveying. In 1916 he enlisted in the Fifth Maryland National Guard Infantry, and served as corporal, sergeant and supply sergeant until April 9, 1917, when he was commissioned a second lieutenant. The following month he became a first lieutenant. In the same year he took a special course in aeronautics at the Massachusetts Institute of Technology. During the year 1916, Col. Wilson saw service along the Mexican Border. When his regiment was mustered into the Federal service to serve in the World War, he went to Camp McClellan, Ala., and sailed for overseas duty in June, 1918. He served in the Vosges-Switzerland Sector; attended the school for flying officers at St. Maxient, France; the Field Artillery School at Camp DeDouge, France; served as aerial instructor at the Second Aviation Instruction Center at Tours, France, and later at the Aeronautical School, Chatillon Sur Seine. In addition, he was attached to the 20th Company, Fourth Motor Mechanics Regiment, Air Service, as post adjutant. At Kettig, Germany, he was aerial observer for the 186th Aero Squadron.

Honorably discharged from the service in 1919, he reentered the Air Service the following year, being commissioned a first lieutenant on July 1st and being promoted to captain the same date. His first assignment under his regular commission was as Acting Air Officer of the Third Corps Area. Later, in 1920, he was transferred to Post Field, Fort Sill, Oklahoma, where he took a refresher course in aerial observation at the Field Artillery School of Fire. He served as instructor in the garrison school at Fort Sill as well as in the Air Corps Observation School at that post.

In the year 1922, Colonel Wilson completed the course of instruction at the Air Service Primary and Advanced Flying Schools, and received the ratings of "Airplane Pilot" and "Airplane Observer. At Kelly Field, Texas, he served as senior instructor, Department of Observation, Advanced Flying School. He also commanded the 42nd School Squadron.

From Kelly Field Colonel Wilson was transferred to the Office of the Chief of Air Service in 1924. In the years 1927 and 1928 he was stationed in the Philippines, commanding Flight B, 2nd Observation Squadron, Nichols Field. He was both instructor and student at the Air Corps Tactical School, when it was located at Langley Field, Va., and later at Maxwell Field, Ala. He graduated from the Tactical School in 1931, and from the two-year course at the Command and General Staff School, Fort Leavenworth, Kansas, in 1936.

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More Medals for Lt. Densford (From p. 6)

Clancy, of the Savannah Police Department, who contributed so much toward the success of the "shoot."

According to further reports, some 145 competitors were entered in the meet, representing to a great extent the cream of the crop among the shootin' gentry. Four new world's records were broken during the three-day meet, and all winners received, in addition to medals, some mighty nice cash awards. No trophies were awarded. Lieut. Densford informed the Kelly Field Correspondent that for the time being anywat he plans on hanging up his shootin' irons, but looks forward to attending the pistol matches to be held next March in Tampa, Fla. All followers of the shooting sport at Kelly Field feel confident that Lieut. Densford will mow 'em down again, given the opportunity, be it at Tampa, Paducah, or what have you.

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NEW AIRPLANES FOR ALBROOK FIELD

New equipment, long awaited, arrived at Albrook Field, Panama Canal Zone, on October 28th, aboard the U.S. Army Transport LUDINGTON. In this shipment of airplanes were P-26A's and BC-1's. The new Pursuit planes will be divided between the 24th and 29th Pursuit Squadrons, and it is expected they will be placed in service with the advent of the coming dry season. Two are being assembled by the 24th Pursuit Squadron, to be used at the aerial gunnery camp at Rio Hato, where the field remains in excellent condition the year round. Two of the BC-1's will go to France Field, and the remaining number will be used by the two Pursuit Squadrons for instrument flying training.

Later advice received from Albrook Field is to the effect that the 24th and 29th Pursuit Squadrons have commenced the assembly of the new P-26's and expect to have them all ready late in December. The BC-1's are already in daily use.

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SOLDIER MEDAL AWARD TO CORPORAL STONE

The 18th Pursuit Group at Wheeler Field, Hawaii, held a presentation formation on November 4, 1938, at which Corporal Paul W. Stone, 6th Pursuit Squadron, was presented with the Soldier's Medal and received the following citation for heroism:

Paul W. Stone (Army serial number 6,240,215) Corporal, 6th Pursuit Squadron, Air Corps, United States Army. For heroism displayed near Haleiwa, Oahu, Territory of Hawaii, on December 26, 1937. When a civilian swimmer became exhausted 150 yards from shore and called for help at about 11:00 A.M., December 26, 1937, Corporal Stone with utter disregard for his own safety, immediately swam to his rescue in squally weather in a rough and choppy sea against the tide, the ocean current and the river emptying in the sea, and reached the drowning man just as he was on the point of sinking. Corporal Stone assisted the semi-conscious man to shore and there administered artificial respiration, thereby saving his life.

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R E T I R E M E N T S

Warrant Officer Wilburn C. Dodd, Airplane Pilot, last stationed at Mitchel Field, N.Y., was placed on the retired list on November 30th.

Two Air Corps noncommissioned officers were placed on the retired list, effective November 30, 1938, namely: First Sergeant Percy E. Guppy, Base Headquarters and 8th Air Base Squadron, Brooks Field, Texas, and Staff Sergeant Hugh J. Duffy, Base Headquarters and 14th Air Base Squadron, Bolling Field, D.C.

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WAR DEPARTMENT SPECIAL ORDERS
Changes of Station

To Hawaiian Department: 1st Lieuts. Donald H. Baxter, from March Field, Calif.; Richard T. Coiner, Jr., Mitchel Field, N.Y.; Herbert L. Grills, Barksdale Field, La.; Charles W. Haas, Chanute Field, Ill.

To Mitchel Field, N.Y.: 1st Lieut. Wm. M. Garland, from Panama Canal Department; 1st Lieut. Marvin S. Harding, from Hawaiian Department.

To Washington, D.C.: Major Burton F. Lewis, from Mitchel Field, N.Y., for observation and treatment at Walter Reed General Hospital.

To Langley Field, Va.: 1st Lieuts. Edward W. Suarez and Archibald M. Kelly, from Hawaiian Department, the latter for duty with duty with 3rd Observation Squadron.

To Sacramento, Calif.: Major Edward V. Harbeck, Jr., from San Diego, Calif., for duty as Air Corps Technical Supervisor.

ACTIVE DUTY FOR AIR RESERVE OFFICERS

2nd Lieut. Christopher Otho Moffett, of Fordyce, Texas, to Kelly Field, Texas, to November 6, 1941.

2nd Lieut. Edward Farmer Tindall, of Maryville, Mo., to Barksdale Field, La., to November 13, 1941.

2nd Lieut. Elton Lewis McCune, Air Reserve, Dallas, Texas, to Hamilton Field, Calif., to November 29, 1941.

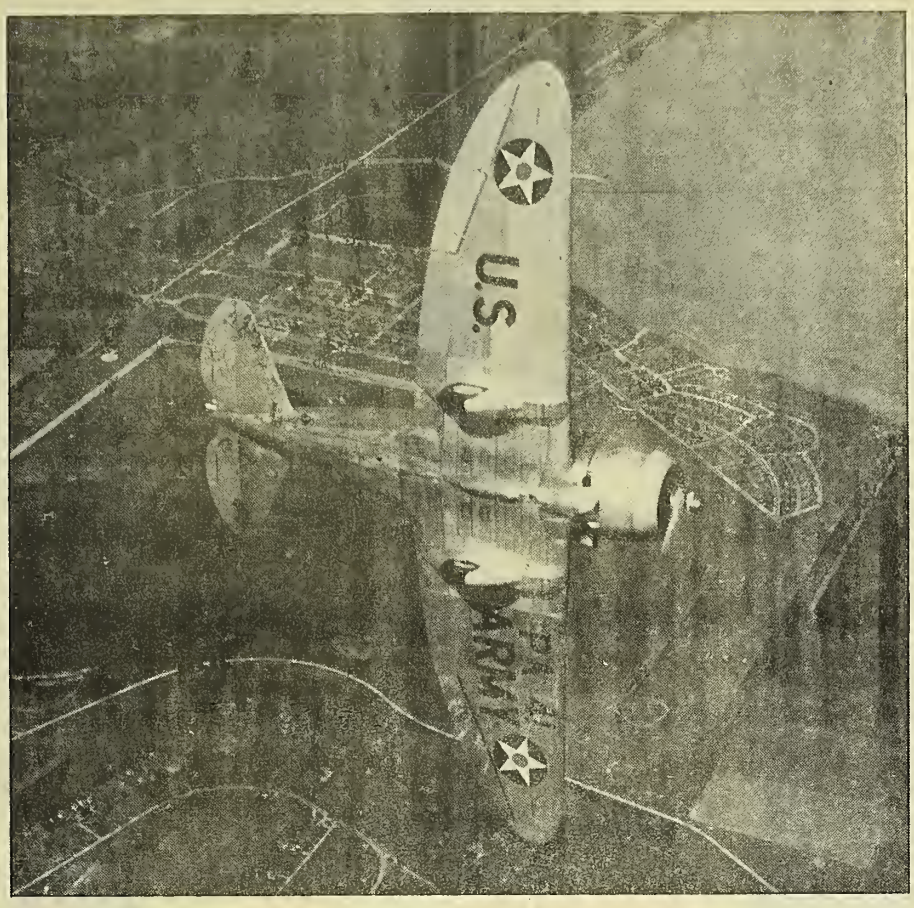
Active duty of 1st Lieut. Fred Nathaniel Ward, of El Paso, Texas, now stationed at Kelly Field, Texas, extended to November 15, 1939.

Second Lieut. Wm. S. Crocker, Jr., Corps of Engineers, has been relieved from assignment and duty at the Air Corps Training Center, Randolph Field, Texas, and assigned to the 1st Cavalry Division, with station at Fort McIntosh, Texas.

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L O S T A N D F O U N D

An Air Corps officer wrote to a station which he recently visited, requesting that his coat and gloves he left behind be forwarded to him. When the package arrived he found it to contain a coat and a pair of gloves similar to his own, but much smaller, and which another officer was evidently missing. He would like to forward the clothing to the rightful owner, but has no way of knowing who that individual is. The Air Corps Materiel Division suggests the inauguration in the News Letter of a "Lost and Found" column, believing property could be recouped through such a column. This will be done, but it remains for the Air Corps stations to cooperate.



The above photograph appeared on page 54 of the December issue of POPULAR AVIATION, and the comment below it speaks for itself, viz:

"Yes, this is actually an Army Air Corps photograph. Gone is the typical Army pose of the ship flying monotonously level; static against its background. Nor is this Seversky fighter 3,000 feet from the camera plane. In other words, Army officials finally have discovered what British aviation photographers have been capitalizing on for years: dramatic, close-up aerial shots - and always with plenty of action. As we understand it, there is some sort of ban on the photographing of Air Corps ships like the B-17 in any position other than level flight. 'The public might think Army pilots careless.' Funny; even the biggest ships must bank to turn."

On Page 60 of POPULAR AVIATION, devoted to letters to the editor from its readers, the following appears:

"British Photography
Sirs:

.....I am dismayed at the quality of some of the articles printed in your magazine. In your September issue you published a photograph of a well-known type of British fighter and, underneath, an article saying that the R.A.F. was 'forcing' the public to pay attention to it by having such photos taken.....I thought you Americans were supposed to be good at action photos.....Also if, as you boast, you have the best photographic equipment in the world, why don't you use it and produce something worth looking at? I believe you are just jealous of your British contemporary, Flight.....

P.G.G. Clarke."

"Buenos Aires,
South America

Photographically speaking, POPULAR AVIATION has been jealous of Flight for some time. In fact, most of the excellent photographs of British aircraft used in POPULAR AVIATION has been taken by Flight photographers. Air photographers in the U.S. Army and Navy do have the finest equipment, actually are too lazy to make the most of a good thing. Lately, however, Army Air Corps photographs have taken on a promising amount of sparkle. For latest evidence of that, see the photograph on page 54. This picture, however, is not typical of Air Corps photo sections. It is one of many fine efforts on the part of Major George W. Goddard, the Army's ace photographer, to get a bit of originality into Army photos. Air Corps officers in Washington, meanwhile, are striving to better the public relations of the Army largely because that branch of the service is the 'underdog' with the current administration. U.S. Navy photographers, meanwhile, probably produce the poorest results of any photographers POPULAR AVIATION has come in contact with, including the most inexperienced box-camera amateurs. - Ed."



AIR CORPS NEWS LETTER



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VOL. XXI AIR CORPS NEWS LETTER NO. 24.

Information Division
Air Corps

December 15, 1938

Munitions Building
Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard and others connected with aviation.

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THE URGENCY OF ADEQUATE PREPAREDNESS

Addressing the Industrial Session of the 14th Annual New England Conference of the New England Council at Boston, Mass., on November 18th, last, the Hon. Louis Johnson, Assistant Secretary of War, referring to America's struggle during the Revolutionary War and during the World War to attain and preserve the principles of tolerance and justice, stated that "we cannot afford to blind ourselves to the affairs of the world. The chaotic status of international relations in Europe and Asia are casting their evil shadows upon our peace and upon our American way of life. We must take steps to halt any conceivable advance on their part to these shores. ** Today, it rests upon us of this generation and upon you, who by example and by precept, are upholding it in the fine tradition of the New England town meeting. The tenets of free speech, freedom of religion and tolerance you fondly cherish, proudly exalt and steadfastly maintain. Tomorrow, we or our children again may face a challenge, not only of intolerant ideas but of brute force and we must be prepared to meet it. * * * The United States has an interest in the world second to none. With only six percent of the world's area and seven percent of its population, we consume seventy-three percent of the world's silk, sixty percent of its petroleum, fifty-six percent of its rubber, more than half of its tin, forty-eight percent of its coffee, forty-seven percent of its copper, forty-two percent of its pig iron and twenty-one percent of its sugar.

"Our people own four out of every five automobiles in the world and three out of every five telephones. We have one-third of its railroads. We own more than one-half of all of its monetary gold. The purchasing power of our one hundred and thirty million people is greater than that of the entire five hundred million of Europe. It surpasses that of the billion inhabitants of all of Asia.

Ours is a happy nation. We have our faults but we are honest enough to admit them and are making every effort to correct them. Despite shortcomings here and there, we still provide greater security to property, more protection to life and greater happiness to our individual citizens than does any other nation on the face of the globe. To belong to America is indeed a rare privilege. To enjoy its citizenship is a priceless treasure. * * *

"Unfortunately, all nations do not march in step with our policy of good will. In the seething cauldron of discontent, many European and Asiatic peoples now boil. Imperialistic designs and selfish ambitions control national policies and no one knows the full extent of their evil machinations.

"With international society in such a state, we must gird our loins. We must prepare ourselves. The forces of evil must not overtake us. How much in the way of men and munitions we may need for our defense against these dire influences, no one at present can definitely foretell. We do know, however, that today, right now, we are weak in the sinews of battle to protect even our own shores.

"Yesterday, we believed that a program calling for 2,320 airplanes of all types by 1940 would protect us against any enemies from the air. Today, these figures are far below our immediate needs. Not so long ago, we boasted that our Air Corps was the pride of the skies. We held records for speed and endurance. Our pursuit ships, our attack planes, our flying fortresses and our super-flying fortresses were the envy of the world.

"Today, we no longer can make good our boast. Our air supremacy is threatened. From Europe come reports of pursuit ships and attack planes of greater speed and better performance. Even the marked superiority of our flying fortresses and our super-flying fortresses is challenged. To meet the tremendous pace that the rest of the world is setting, we must double, yes, treble and perhaps even quadruple our present air force with the best airplanes that can possibly be produced.

"We are falling behind in our development program. This lag is due to a loss neither of our inventive genius nor of our skilled craftsmanship. It is due to our failure to give enough attention to the importance of a continuous program of research and development.

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"Last year, we are told Great Britain spent fifteen million dollars in its research laboratories on military aeronautics. France spent more than ten million dollars. No one knows how much Germany and Italy devoted to this purpose. In contrast with these expenditures for development among European powers, we spent only six million dollars.

"To stay at least abreast of the world's developments in aviation, we immediately must construct and install additional laboratory facilities at Wright Field. Those now in existence, we must expand and improve. To attract high-grade scientists and engineers, we must offer well-paying jobs and attractive careers. Once supreme in the field of military aeronautics, we must remain supreme. An investment of a few extra million dollars in research and experimental work spent today, tomorrow may bring us dividends in security that no amount of money could buy.

"Our air force is tremendously important in the early stages of conflict. We should therefore augment its numbers and keep it close to a state of readiness at all times.

"While we still speak in terms of units, of tens, or perhaps of hundreds of military airplanes, the rest of the world has stepped up the production of aircraft to the thousands. England claims the building of three thousand planes a year. Germany boasts of an annual productive capacity of more than twelve thousand fighting craft. During the calendar year of 1937, we, in the United States, produced a little more than three thousand for all purposes - military, commercial and private.

"Our present productive capacity we must now increase many fold. Contracts must be given to the aviation industry to build us enough planes to meet our full military needs on M-day, and this must be done at no sacrifice to the growing and pressing needs of our commercial aviation which today leads the world. Mass production of airplanes we must achieve in this country, and we must do so immediately.

"Not only planes, but tanks and machine guns in greater quantity and of better performance we must immediately procure. We must add to our new semi-automatic shoulder rifles which the world regards as the peer in small arms. We must add anti-aircraft guns. We must streamline our infantry and cavalry divisions. We must build up our reserves of munitions and it is to that phase of national defense that we must now turn.

"If an emergency were to arise tomorrow, we would call out 400,000 men. This would include most of the Regular Army in the United States and the whole of the National Guard, to which your own Yankee Division is an indispensable asset. Within four months, we would have to be ready to put into the field an army of one million men.

"These minute men of America, upon whom the brunt of defense in the early stages of battle may fall, are entitled to their full complement of supplies and equipment and to the best obtainable anywhere in the world. The richest country, with the greatest stake in peace and preparedness, must in no way prove penurious in providing for the needs of America's first million. If called to battle today, our Army would find itself short of artillery and tanks, of combat cars and airplanes, of machine guns and of semi-automatic rifles, of anti-tank guns and of ammunition, of gas masks and of searchlights, of telescopes and quadrants. Those shortages we must make good now.

"We must fortify ourselves against the possibility of shortages in an emergency. We must build up a six months' supply of all our military needs except food and clothing. With such a physical reserve on hand, there would be no need, in an emergency, to dislocate industry's normal services. During that six months we have time to put our factories into full gear, fully equipped to pick up their responsibility of war production until the end of the emergency. * * *

"In the past few years, we have made a great deal of progress toward the achievement of our industrial mobilization program. We have smashed a number of bottlenecks but we have not broken enough of them. We must keep abreast of military developments. We must build our defenses so that no nation in the world would dare attack us."

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RANDOLPH FIELD HAS RECORD FREEZE

Thanksgiving Day at the Primary Flying School, Randolph Field, Texas, was a typical north country type, for the mercury slid almost out of sight when it touched a record low of 21 degrees during the night. This low climaxed several days of below freezing weather. Prior to the "Norther," typical Texas fall weather was experienced, and following the cold snap the thermometer again returned to normal.

Flying weather has been remarkably good at the Primary Flying School during the entire month of November. The Primary Stage reports that only four hours of flying time were lost during the last 15 days of that month due to inclement weather.

New ratings have been given to several of the Post Weather Office personnel. The following changes were made: Privates 1st Class Jay T. Treat and William J. Stricker were promoted to Sergeant and Corporal, respectively, and Private Lyon O'Brien to Private 1st Class. Privates Richard L. Parker and William S. Dawson received 4th and 5th Class Specialist ratings, respectively.

MOFFETT FIELD, CALIF., EXTENDS WELCOME TO VISITORS

Pilots from east of the Rocky Mountains are reminded that the Air Corps occupies Moffett Field and keeps open house for visitors.

Moffett Field is located 38 miles southeast of San Francisco, Calif. The huge lighter-than-air hangar, 1100 feet long, 310 feet wide, and 200 feet high, affords a landmark visible for many miles in all directions.

Night lighting equipment is excellent. There is no radio range at Moffett Field, but the Oakland range, only five to ten minutes away, makes Moffett Field easily accessible even in bad weather. There are no hills or other obstacles other than the usual bridge piers and high tension lines between Oakland, Calif., and Moffett Field. Caution, however, must be exercised to avoid a radio tower, over 600 feet high, 6 miles northwest of Moffett Field. Traffic control facilities on 201 kcs are available during daylight hours and at all times on request. Weather is broadcast on the same frequency at 10 and 40 minutes past the hour and oftener when necessary.

Expert service of all kinds and a good Hotel de Gink are available day or night, and the Welcome Mat is always displayed.

The garrison at Moffett Field now comprises 24 officers and 292 enlisted men, consisting of the 82nd Observation Squadron, Air Corps; Base Headquarters and Ninth Air Base Squadron, Air Corps, and detachments of Medical Corps, Quartermaster Corps, Signal Corps, and Finance Department.

Colonel Follett Bradley, Air Corps, is the Commanding Officer of Moffett Field.

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IMPROVEMENTS ON RANDOLPH FIELD PRIMARY STAGE

The War Department has approved a locally sponsored State W.P.A. Project, involving the expenditure of $30,564.61, to construct curbs, ramps and service pit slabs; relocate service pits; install air, water, gasoline and electrical service lines to pits, etc., at the Primary Flying School, Randolph Field, Texas, according to a recent announcement of Major F.D. Shawn, Quartermaster.

This project was listed under Priority No. 2, among several items of construction which a Board of Officers, headed by Lieut. Colonel E.B. Lyon, Air Corps, recommended as most urgent for consideration incident to the expansion of training activities at Randolph Field. The item given first priority by this Board covered the construction of two barrack buildings required to house members of the increased Flying Cadet classes. Work on these two buildings has proceeded rapidly and is about fifty percent complete.

The Board found that the proposed ramp construction, as now authorized by the War Department, was necessary incident to the utilization of Hangar "J," the present transient aircraft hangar, to provide an additional flight on the west or Primary side of Randolph Field, with offices and other facilities required for the training of approximately 50 students.

The transient aircraft facilities will be moved to Hangar "U," and the $30,564.61 provided by the War Department and the Works Progress Administration will be used to increase the width of the present ramp in front of Hangar "U" by 110 feet. This will facilitate the handling of the larger type transient aircraft, and extending the ramp now in front of Hangar "J" to the north to meet the ramp to be extended in front of Hangar "U," moving the gas pits in front of Hangars "U" and "V" to new locations, and moving the flood lights to a more suitable location out of the way of aircraft taxying towards the ramp of Hangar "U."

Major Shawn declared that "this will provide a completely surfaced area, clear of obstacles, on which visiting aircraft may be maneuvered without interference with the control and coordination of Primary training activities."

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TRAINING DIRECTIVE INSTEAD OF TURKEY

While most people were enjoying their Thanksgiving turkey dinner, 23 Randolph Field pilots were off on navigation missions as part of their War Department Training Directive. The three-day lapse in student training afforded an opportunity to pilots, most of them instructors, to comply with this phase of their personal training which often is handicapped when student instruction is scheduled.

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LANGLEY FIELD ACTIVITIES

Three ranking officers from Langley Field, Va., returned on November 30th an official visit paid them the previous day by Brigadier General Frederic H. Smith, recently appointed commander of the Third Coast Artillery District, with headquarters at Fort Monroe.

Representing Langley Field were Major General Frank M. Andrews, Commanding General of the GHQ Air Force; Brigadier General Arnold N. Krogstad, Commanding General of the Second Wing of the GHQ Air Force, and Colonel Walter R. Weaver, Commanding Officer of Langley Field.

Arriving at Fort Monroe, Va., at ten o'clock, the Langley Field officers were greeted with a salute of 13 guns fired by the Ordnance detachment. Later they made a tour of the post, accompanied by a guard of honor.

A reception was held at the Officers' Club at Fort Monroe in honor of Brigadier General Smith and Colonel William E. Shedd, the latter being advanced the following day to the rank of Brigadier General.

The 36th Pursuit Squadron returned not unwillingly to Langley Field, Va., on November 20th, after two weeks of gunnery at Valparaiso, Florida. All pilots were qualified either as Marksmen, Sharpshooters or Experts. Everyone enjoyed the stay on the sunny Florida coast, but, not having seen much of the old home station for the past month, they cherished the opportunity of spending Thanksgiving Day with families and friends.

During its gunnery activities at Valparaiso, Fla., the 36th Pursuit Squadron was inspected by Brigadier General Arnold N. Krogstad, Majors Lynn, Glenn and Skow. Desiring a taste of camp life, General Krogstad refused the invitation of Captain Whatley to stay at his home, and so a fine tent was set aside for him and Major Glenn. At 4:30 o'clock the first morning, and much to their surprise, in came a soldier with a flashlight. He flashed the light a couple of times and then queried:

"Which one of youse guys is going to get up and help me cook breakfast?"

Needless to say, the soldier received little help, but plenty of embarrassment for getting into the wrong tent.

On November 7th and 8th, the 20th Bombardment Squadron, 2nd Bombardment Group, reinforced by one airplane from the 49th Bombardment Squadron, conducted a Joint Training Exercise with the Navy. It was similar to past exercises, in that a destroyer towed a sled target which simulated a Carrier. In this problem the target ship was required to remain within 100 miles of the shore, and hence the navigation was extremely simple and it was almost possible to fly out to the reported position of the boat by pilotage. The results of the bombing satisfied even the Group Statistical Section, which is always looking for results which will lower the mil error of our bombardiers.

With the arrival of two B-18A's, the 20th Bombardment Squadron was brought up to a strength of four B-17's, two B-18A's and one BC-1. One of the B-18A's was ferried by Major Meloy, Lieut. Rueter and Staff Sergeant Fields. At the present time the commissioned strength of the Squadron is sixteen officers.

The 96th Bombardment Squadron now possesses two B-18A Bombardment planes and one BC-1. The latest B-18A was ferried from the Douglas factory on the West Coast on November 7th by Lieuts. Mussett and Waldron. The B-18A's and the BC-1 now afford considerable miscellaneous flying for junior officers in the Squadron.

The 49th Bombardment Squadron has deserted its bombing and machine gun practice and turned primitive, having taken up archery. Among the most consistent archers are Major Haynes, Lieuts. Kilpatrick and LeMay.

Majors McReynolds, Koenig, Captain Wolfinbarger, Lieut. Bell, Corporals Lynn and Vick, of the Headquarters and Headquarters Squadron, 2nd Bombardment Group, were ordered to the Douglas Aircraft Company, Santa Monica, Calif., to ferry two of the new B-18A airplanes to Langley Field. The trip to Santa Monica was made by rail, and the new ships were flown back without mishap.

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TELETYPE INSTRUCTION FOR WEATHER MEN

During the latter part of November, two men from the Post Weather Office at Randolph Field, Texas, have been detailed to the Kelly Field Weather Office to enable them to obtain experience in handling a teletype machine that is on the "long line." By "long line" is meant a teletype machine which has a direct hook-up with the Department of Commerce circuit. Randolph Field was scheduled to go on the long line on the first of December. This meant added work and added responsibilities for the men in the office and, says the News Letter Correspondent, "it is felt that if they can acquire some additional knowledge beforehand they will be more able to cope with this situation."

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Under Special Orders of the War Department, dated December 2, 1938, six noncommissioned officers of the Army were appointed Warrant Officers December 1, 1938; one each from the Medical Corps, D.O.L., Engineer Corps, Ordnance Department, Q.M. Corps and Coast Artillery.

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THE ANNUAL CHARITY AFFAIR AT LANGLEY FIELD
By Norman E. Noll

Langley Field and various branches of the military service, manufacturing concerns and merchants of the locality displayed one of the most educational exhibitions ever held on the Lower Peninsula of Virginia, when the Second Annual Charity Fair and automobile show attracted upwards of 50,000 enthusiastic spectators throughout the three-day event, December 2nd to 4th, inclusive.

A varied program, which by far exceeded the 1937 premier, included such celebrities as Virginia's Chief Executive, Governor James H. Price; Major General Robert M. Beck, personal representative of the Honorable Harry H. Woodring, Secretary of War; Miss Helen Jacobs, internationally known tennis star; Allan Jones and Irene Hervey, Metro-Goldwyn-Mayer star motion picture actors, as well as many other notables.

The first day of the fair was designated as "Children's Day," with every Peninsula school child invited as a guest. The second day was known as "Governor's Day," in honor of Governor Price, and the third day was called "Army Day."

General Beck, representing the Secretary of War, who was detained in the nation's capital by official business, opened the gala three-day classic with official recognition from the government at Washington. Greeted at the main hangar with tremendous applause, General Beck stated that Mr. Woodring was very much interested in the project and the noble cause for which it was given.

Governor Price, accompanied by Adjutant General S. Gardner Walker and other members of his military staff, arrived at Langley Field on the morning of the second day of the fair which, as before stated, had been set aside as "Governor's Day." In his message of appreciation and congratulations, Governor Price said that the second annual charity fair was an added contribution to the great work being done and that it deserved the hearty support of all Lower Peninsula.

During the glittering display of Cinderella-like pageantry which marked the military ball, Virginia's Chief Executive crowned the Peninsula's most precious and adorable queen - the beautiful and rather glamorous Miss Mary Watkins Ayler, of Hilton Village, a nearby community.

The identity of the queen remained a secret until the night of the Coronation, when the selection of the Junior Women's Clubs of the Peninsula favored the lucky Miss Ayler. The evening's entertainment included an elaborate floor show, music by Meyer Davis Orchestra of Washington, D.C., with Hughie Prince as master of ceremonies.

Babies from all over Lower Peninsula were entered in the Baby Show on the first day of the fair. There were five classifications in all, with Albert F. Pearce, Jr., four years old, being awarded the baby championship trophy.

Then there was the airplane model show, under the management of the Virginia Association, and the dog show, sanctioned by the American Kennel Club. Both of these shows proved very successful. Governor Price awarded the main prizes in the airplane model show, while Miss Helen Hull Jacobs, former national women's tennis champion, attended the canine show in the capacity of a judge, exhibitor and trophy-presenter to the owner of the show's best dog.

The exhibits, displays and conces - sions at the fair represented practically all the leading merchants of the Tidewater area. Displays from outstanding groups which faithfully represented this locality were from the Air Corps, Fort Monroe, Army Aeronautical Museum, Quartermaster Corps, Chemical Warfare Service, Army Ordnance Association, Medical Corps, National Advisory Committee for Aeronautics, Model Airplane Association, Daily Press, Mariners' Museum, Yorktown Restoration, Hampton Institute, Virginia Fisheries Association, Boy and Girl Scouts and the high schools. There were also interesting displays by national manufacturing concerns, such as the Sperry Gyroscope, Wright Engine, United Aircraft, Fairchild Aerial Camera, Kollsman Instrment, B.G. Spark Plug, Aviation Manufacturing, Goodrich, DuPont, Snap-on-Tools National Biscuit, General Baking, Beechnut, Coco Cola and the A.B. Dick Mimeograph Company.

One entire hangar was allotted for th showing of the 1939 automobiles - displays by many of the leading firms of this locality.

Special afternoon and evening feature held the spotlight in the main hangar, with a continuous musical and entertainment program being rendered by organizations such as the splendid group of Hampton Institute Singers, American Legion Band, Fort Monroe Coast Artillery Band, Hampton Junior Drum and Bugle Corps, Newport News High School Band, and a group of well selected singers, comedians and musicians from Langley Field, which was headed by Gene Tyler, famous master of ceremonies of the Peninsula Area.

On the last night of the fair and at the sound of the old familiar eleven o'clock "Taps," the eight hangars no longer bore their brilliant glare and the sounds of laughter, merriment and gayety which prevailed for three short days became a memory of a successful event which evidenced a spirit of cooperation and appreciation by all.

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THE WHEELER FIELD NAVIGATION SCHOOL
By 2nd Lieut. George S. Brewer, A.C.

A course of instruction in Dead Reckoning and Celestial Navigation was recently completed in the 18th Pursuit Group, Wheeler Field, T.H. Lieut. Leighton I. Davis was the instructor, and the students were Lieuts. C.D. Vincent, R.H. Carmichael and R.E. Warren.

The course was quite comprehensive, consisting of both theoretical and practical exercises. It covered a period of three months and kept all four officers quite busy. Navigation training flights were made to all the islands of the Hawaiian Group, and the students became quite proficient in hitting the lighthouses on the nose (without peeping, they claim). On one trip to Hawaii, Lieut. Earl E. Bates was pilot of the OA-3 and Lieut. Vincent was the navigator.

About ten miles from Hilo, on the return trip, one motor grew tired of it all and decided to quit. With the skillful navigation of Lieut. Vincent (and very capable flying by Lieut. Bates) a successful landing was made in Hilo Harbor, much to the astonishment of natives who were watching from the pier. After yelling lustily but vainly for a boat, the rubber life raft was unlimbered and a successful, if damp, trip to shore was made.

The course wound up with an all-day mission, running a "landfall problem" on Diamond Head. The students' ability to "shoot the sun" from an airplane was put to the acid test in this problem. All three came within the allowable limits, two hitting within four miles of the objective.

Diplomas of proficiency were given to the students at the end of the course, and the Group now has three more full-fledged navigators.

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ENGINEERS TO STRESS NATIONAL DEFENSE

During the course of the Annual Meeting of the Society of Automotive Engineers, Inc., to be held at the Book-Cadillac Hotel, Detroit, Mich., January 9th to 13th, next, a day will be devoted to national defense, when key men in the nation's armed forces, including the Quartermaster General, the Chief of Ordnance, the Chief of the Air Corps, and the Assistant Chief of the Bureau of Aeronautics of the Navy Department will be guest speakers.

Civil and well as military aeronautical problems will be attacked in the five aircraft and aircraft-engine sessions scheduled during the meeting.

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War Department orders relieving Colonel Byron Q. Jones from duty as instructor at the Army War College and assigning him to Panama Canal Dept. have been revoked.

BORN TWENTY YEARS TOO LATE
- Anonymous -

A new and novel thing they called
a BC one was rolled into
our hangar yesterday and I knew
I'd hafta fly the bloomin', thing
pretty soon
so I sed I'll just look this
fella over and see
what makes it tick
so I sneaked a peek inside
and was amazed
that cockpit looked just like
the window of a pawn shop
I was wont to frequent
years ago
in those dim days my P twelve
sitting yonder
was a new and vicious weapon
and men had called it
the ultimate word
it was flown most accurately
however
from the seat of the britches
and one had time now and then to
glance about him for the enemy
sitting there
surrounded by these new and hostile
glassy faces
and with forty tech orders
in my lap
I wondered if they hadn't overdone
this thing a little
so I asked the crew chief
if we couldn't get along without
just one row of things and handles
but he said
no they might come in handy some day
but I still was dubious about
one or two minor items
I got out very gently so
as not to break anything
and my years weighed down upon me
as I walked over and patted
my unsophisticated little P twelve
on its unsophisticated
little tail
All the way home I wondered if
I wouldn't have been a hot
war pilot.

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44TH RECONNAISSANCE SQUADRON IN CAMP

The 44th Reconnaissance Squadron, stationed at Albrook Field, Panama Canal Zone, encamped at Rio Hato, Republic of Panama, on December 1st for three weeks of gunnery and field maneuvers. This year's camp marks the first use of the B-18 airplane, recently added to the Squadron's equipment in the field in Panama. It is not known definitely when more of the new Bombers will arrive.

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Major Aubrey Hornsby, Air Corps, who has been holding a temporary commission in that grade, was promoted to the permanent grade of Major, December 1,1938.

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Almost 300 trees are being planted at Randolph Field by the Provost Marshal's office, under the direction of Lieut. R. Heber. These trees are replacing those which have died since the original landscaping project and, in addition, will serve to complete the plan eventually to have all tree-bordered roadways at the Primary Flying School. Ligustrums are being used principally for this work, 210 of them being planted. In addition, 66 Arizona Ash trees and six Weeping Willows are being used.

Randolph Field played host to 136 visiting pilots in 106 airplanes during the month of November, a survey of Operations Office records reveals. A total of 18 Air Corps stations was represented by the visitors, who arrived in 17 different type planes. The BC-1 type was almost displaced from first place as the most popular visitor, the score for the month showing that 21 BC-1's and 21 B-18's dropped in for service or for an overnight stop during the month. The A-17's, mostly from nearby Barksdale Field, were in second place, 20 of them visiting the Primary Flying School during the last thirty days.

Having recently returned from the Thanksgiving holidays, the Flying Cadets are now looking forward to the Christmas holidays. Most of them will be able to go home for Christmas, that is, if their pay will last until the end of December. The Christmas holidays will last about eleven days.

For the first time in the memory of a Flying Cadet, black wool socks are being worn. Always on the lookout for something to improve their appearance and comfort, it was decided to dye the natural color wool socks, as now issued. This was done through a local San Antonio laundry. The results were pleasing, and no more will a Flying Cadet be timid about sitting down in the best of company.

Starting with the next issue of the Air Corps News Letter and continuing intermittently for an indefinite period, portions of a "Dictionary" of Flying Cadet "phraseology" will be furnished. "It is believed," says the News Letter Correspondent, "that many colorful phrases, expressions and sayings have been originated in the Flying Cadet Detachment since its inception, and that this information should be passed on to the Air Corps in general for its 'information and guidance.'"

Aero Repair, 11th Air Base Squadron, completed repairs on 17 airplanes during the last two weeks of November. A total of 97 airplanes was serviced and inspected during this period. This included one flight of six B-18's from Hamilton Field, Calif., the bombardiers dropping in after a non-stop navigation mission. They remained at the "West Point of the Air" for a day and then returned to their base on another night navigation flight.

In the 52nd School Squadron, deer hunting stories have been the main source of conversation since the season opened, and several members of this organization have brought back big bucks to back up their stories.

The strength of the Flying Cadet Detachment has decreased somewhat since October 10, 1938. Class 39B was transferred from "A" Stage with a strength of 178 Flying Cadets, plus one "hold over." Up to date, four have been disqualified, due to failure to meet flying requirements, and have been discharged. Nine others have been disqualified and are awaiting discharge.

Class 39C started with 230 Flying Cadets, plus three "hold overs." Of this number, 18 have been disqualified, due to failure to pass their physical examination given at the School of Aviation at Randolph Field. Thirty-one Flying Cadets are awaiting discharge, after having been disqualified due to failure to meet the Flying Department's requirements.

Recruiting was temporarily suspended at Randolph Field on November 22nd, when the station reached its authorized strength. A short time ago, the Primary Flying School was authorized an increase of 250 men. Being over-strength at the time, a total of 120 men were recruited, thus bringing the total number of men in the command to 1484.

The town of Burkburnett, Texas, 15 miles north of Wichita Falls, Texas, and whose population is approximately 3,000, has furnished nine men to Randolph Field during the recent recruiting. Five additional men from that town have filed their applications, and these are being held awaiting vacancies.

"The exceptionally enthusiastic response that Randolph Field has received from this one town is an indication that the desirability of enlistment at the 'West Point of the Air' has spread throughout Texas, for Burkburnett is in the extreme northern tip of Texas," Lieut. R. Heber, Recruiting Officer, stated.

Sixteen members of the 53rd School Squadron were slated to take the Air Mechanics examination on December 5th.

REFRESHER TRAINING FOR RESERVE OFFICERS

Two groups of Air Corps Reserve officers reported at Kelly Field, Texas, for a fresher course of instruction at the Air Corps Advanced Flying School. The first group, consisting of 14 Reserve officers, reported on November 25th, and the second group, consisting of five Reserve officers, arrived on December 5th. These officers were assigned to sections of the Air Corps Advanced Flying School, as follows:

Bombardment: 2nd Lieuts. Fred M. Adams, Jon A. Laird, Charles W. Maynard, Alvin J.H. Mueller, Luther E. Thomas, Cloyce J. Tippett, Norman K. Warner.

Pursuit: 2nd Lieuts. William C. Armstrong, James O. Beckwith, Jr., Walter L. Hawkins, Joseph C. Mackey, Lewis M. Sanders.

Attack: 2nd Lieuts. Lawrence R. Gibboney, William W. Holmes, Robert J. Koster, Charles J. Langmack, Eugene McCurdy, Claude A. O'Quinn, Frederick H. Postal.

It is expected that these refresher students will complete their course in approximately seven weeks and be ordered to extended active duty with tactical units of the Air Corps.

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NEW ARMY PLANES AT MAXWELL FIELD

Several of the Army Air Corps' trimmest and most deadly airplanes dropped in briefly yesterday (December 6th) at Maxwell Field for inspection by students and instructors of the Air Corps Tactical School and visiting students and instructors of the Infantry School at Fort Benning, Ga.

Of major interest, perhaps, was the Air Corps' only B-15, a huge all-metal bombing plane, with four super powerful motors, from Langley Field, Va. The big ship, a monoplane, returned to its home base about two hours following its landing at Maxwell Field.

Other visiting ships, most of them from Barksdale Field, La., included a B-17, one of the 13 four-engine bombing planes already delivered to the Air Corps under present contracts; a B-18, a P-36 Pursuit ship, an A-18 twin-attack plane, and one of the new A-17A's, attack ship with single motor.

Maxwell Field yesterday was host to the "Refresher Class" of Fort Benning, as well as a number of instructors of that post. Besides inspection of the latest type airplanes, the program included a tour of the Tactical School, addresses on various phases of work done there, and demonstrations in military tactics.

- Montgomery ADVERTISER.

A RADIO OPERATOR'S LAMENT

When the goings getting tough,
And the calls are coming in,
You're pounding on your typewriter
Till your fingers hurt like sin.
Your log sheet starts to slipping
And your alert sheet can't be found,
You holler for the weather
For the ceiling's coming down.
That's when the phone starts ringing,
Some Woman wants to know
If her husband went to Hensley,
If not, where did he go?
That's when your eyes start specking,
And your mind begins to jump.
You start to writing words wrong,
And your head begins to thump.
That's the time you start to wishing
For a shovel or a hoe,
And you say, Dear God, just give me
Any job, but Radio.

---oOo---

ANOTHER VERSION OF A POPULAR SONG

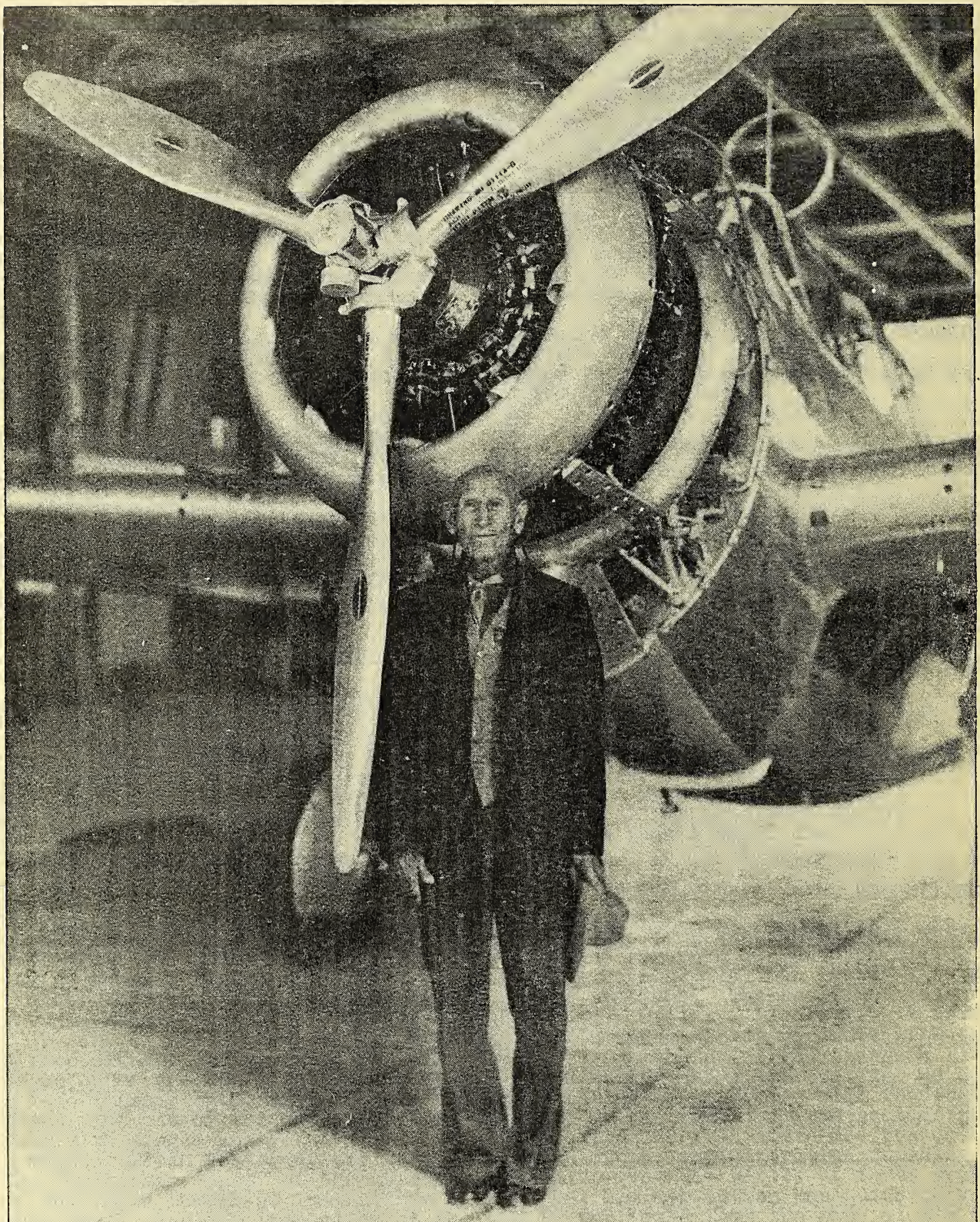
With due apologies to the author

A tisket, a tasket,
A blue and yellow casket,
I took a flight to Maxwell Field
And on the way I lost it.
I lost it, I lost it,
Yes, on the way I lost it,
I passed the cone of silence
And never knew I crossed it.
The clouds and fogs were down below,
My gas supply was running low,
So I stalled her down thru, down and down,
And darn near ran into the ground.
I landed, I landed,
Yes, on my back I landed,
And if I fly like that again,
I know that I shall die.

---oOo---

COMPUTATION OF WIND VELOCITIES

It has long been known that wind velocities recorded at Randolph Field, Texas have been higher than those of neighboring stations. The Assistant Post Weather Officer, Lieut. T.S. Moorman, conducted a series of tests with the hand anemometer at the standard level of six meters above the surface. He assumed that the cause of the high readings was due to the fact that the anemometer was located 197 feet above the surface on top of the Administration Building. Results from his series of tests proves that his assumption was quite correct. It was found that the wind at six meters above the surface was only 7/10 as high as that recorded from the anemometer on top of the building. Since using this correction it is found that Randolph Field's wind speed conforms more nearly to surrounding reports.



"HUNTING HORSE" OLD INDIAN SCOUT LOOKS OVER THE
UP - TO - DATE SCOUT - NORTH AMERICAN O - 47A

AGED INDIAN SCOUT INSPECTS MODERN SCOUT PLANE

Post Field, Fort Sill, Okla., was honored on Saturday, November 19th, by the visit of Chief Hunting Horse (Tsain-Tonkee) of the Kiowa Indians, accompanied by Mr. Albert Cody, also a Kiowa, who acted as interpreter.

Chief Hunting Horse went on his first raid against the "Whites" in July, 1874, near Quannah, Texas. Less than a year later he was acting as an Indian scout with the Seventh Cavalry at Fort Sill, Oklahoma. He was with the group which persuaded the rest of the Kiowa Indians to surrender to Colonel Davidson at Fort Sill, one of the important outposts in the Southwest at that time. Chief Hunting Horse is a pensioned Indian Scout, and was decorated with an Indian War Medal. He is 91 years old and still lives in the vicinity of Fort Sill, close to Mount Scott, Oklahoma.

Chief Hunting Horse inspected one of the new O-47A airplanes assigned to Flight "C" of the 12th Observation Squadron, both inside and out. He seemed impressed with our modern means of scouting (i.e., Aerial Reconnaissance) as compared with the method used during his active service of sending out individual scouts on horseback.

"We were pleased to have the Chief and his friend accept Lieut. Colonel D.B. Howard's invitation to visit Post Field, declares the News Letter Correspondent, "and hope he will return every few 'moons.' As a memento of this visit and as a record of future historical interest, the Chief was photographed standing 'to head' of the O-47A airplane and its 975 'horses.'"

The News Letter Correspondent submitted a copy of this photograph for publication, and a reproduction thereof appears on the opposite page.

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RECORD NUMBER OF SOLOS AT "WEST POINT OF THE AIR"

Another record in student training has been established at the Primary Flying School at Randolph Field, Texas. A total of 270 student pilots have soloed out of 335 students who started training on the Primary Stage on October 24th, the percentage being almost 78.

This is a record number of solos for a winter class, which is usually hampered by frequent interruptions in training due to inclement weather. This class, both on the Primary and Basic stages, was blessed with unusually fine flying weather. Aside from an official holiday, Thanksgiving, only four hours were lost from the training schedule because of weather during the last two weeks of November.

But accompanying the dry spell came dust, dust and more dust, until the outlying airdromes were at times obscured. On the Primary side of the field, instructors and students alike return to the home airdrome after a "solo stage," begrimed and ready for a shower after an hour of battling the dust clouds.

All of south Texas is suffering from the extreme lack of rain, and the San Antonio Weather Bureau reported that the six months ending November 30th constituted the driest period in the history of the bureau.

The Basic Stage reports that the training is slightly ahead of schedule, due also to the fine weather. Instrument flight training and night flying are both well under way. The average flying time for the Basic students as of December 1st was 32:22, of which 19:35 hours were solo and the remainder dual.

Two officers, recent arrivals, have been assigned to the Basic Stage. Captain J.T. Sprague, who has had several years' experience at the Training Center, is assuming command of "A" Flight; and Lieut. H.F. Miller, instructor for the past two years on the Basic Stage, was transferred to the Ground School Department.

A new Link Trainer of an improved type has been installed in "B" Flight, on the Basic Stage, replacing one of the earlier models of the instrument training machine. "Many favorable comments have been heard on the performance on the new trainer," the News Letter Correspondent declares. "It flies almost like an airplane," is the usual comment."

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SHIFT IN COMMAND AT MAXWELL FIELD

Another shifting in command at Maxwell Field, Ala., which divides responsibilities between Colonels John H. Pirie and Millard F. Harmon was recently announced at that station.

Under the new order, effective immediately, Colonel Pirie will serve as Commanding Officer of the post, while Colonel Harmon will be Commandant of the Air Corps Tactical School. The revised order places the responsibility for the operation of the Tactical School upon Colonel Harmon, and restores Colonel Pirie to the general command of the post, still enabling him to devote the greater portion of his time to the important Air Corps Board, of which he is the head. Lieut. Colonel Wilson will continue as Assistant Commandant.

INSTRUCTORS ARE HUMAN

By Frank Lambert

Ed. Note: The very interesting article under the above heading appeared in the November 15th issue of the SPORTSMAN PILOT, and is reprinted by special permission of the editor of this magazine.

The March issue carried an article entitled "Those !!!---!!, !*---* ! Instructors (and Doctors)." The article was a protest against "hard-boiled" instructors and flight surgeons and a severe criticism of our Service flying schools and of their systems of selecting and eliminating students.

These schools are certainly not above criticism and the systems they employ are far from perfect, but the severity of the author's disapproval is hardly justified by the facts. His suggestions are worthy of consideration but their adoption would seriously disrupt the present high morale of our military air forces. His comments are interesting and stimulating but they are based upon misconceptions which are shared by a great many people otherwise well-informed about aviation.

The old, old story that most military flying instructors are "hard-boiled" seems to be just as persistent in the flying world as the similar idea that all pilots are dare-devils is persistent elsewhere. The tough, sarcastic, explosive instructor is one of the grand old traditions of flying and in some respects it is too bad that this picturesque individual has gone with the winds of progress in military flying as well as commercial.

Some very influential men have made careful psychological studies of the processes of instructing students. The conclusions these men reached, as well as the accumulation of experience, became effective several years ago in converting or eliminating those few instructors who believed there was any value in bullying or intimidating students. In commercial flying, of course, practical considerations long ago rendered this practice very obsolete. The same is true in military aviation, except that the practical influence there proved to be "efficiency," which is the military watchword.

A commercial instructor's ability can be judged by his success with students, and a military instructor's efficiency must be measured in the same way. Any instructor whose students consistently failed to make progress, because he was "hard-boiled" or for any other reason, would soon be on the carpet. The instructors have supervisors, too, and if it were true that " a large proportion of these 'bust-outs' can be traced back to some inconsiderate, conscienceless instructor" those supervisors would have been the first to find it out, and to find out the "conscienceless" instructors as well.

Instructors are chosen as carefully as possible but, of course, some are blessed with more endurance and patience than others. I remember one who was so tolerant and reticent that I was constantly worried for fear he had lost all interest in my efforts. Some students do somewhat better under an instructor who is always critical and demanding, others under one who is easy-going and optimistic. Student assignments are also made carefully, in an effort to match personalities. An apt student can learn from any good instructor, but border-line cases are sometimes shifted even without their asking it, when it is believed that a change might be of some benefit. Students know that they may request a change of instructors at any time, for no other reason than a "personality clash," but such requests are rare.

Admittedly, there have been occasional instructors of the "hard-boiled" type our author describes. But I do not see how they could have done any great damage. Several years ago I attended the flying school which he criticizes so severely and I had an instructor who expressed his displeasure frequently and effectively. Another student of his, whom I knew very well, liked him very much and insisted he was the best instructor in the school. But I was not doing particularly brilliant work and I thought he wasted too much time telling me about it, so I requested a change. It was readily granted. As it happened, that instructor was soon relieved from instructing and eventually left the service. He is now instructing commercially. Since that time I have known scores of instructors, but none of them have been as "tough" as the one just mentioned.

Cursing or intimidating a student, which our author seems to think is so common, is a serious military offense, and I can hardly conceive of an officer risking a blight on his career to indulge in it unless the circumstances were unusual and so serious as to destroy his self-control. There are, of course, students who are inclined to be "bull-headed," and I have seen such students insist upon doing things so dangerous to themselves and others that complete speechlessness was the only guarantee against a verbal explosion. Instructors are even required not to demonstrate difficult maneuvers or acrobatics to any student until he has had a specified number of hours, just to avoid the possibility that such maneuvers would frighten or discourage him.

Furthermore, no student is ever flunked

merely because he flies poorly on one check ride. A careful record is kept of his grades from day to day. If it were true that "he may be dropped at any one of twenty-five stages or checks" not one in twenty would ever finish. It takes a severe and protracted "slump" to eliminate any student who has ever shown promise. The check rides are not for the purpose of eliminating students, but for the purpose of determining when they are ready for the next stage of instruction. Since the check pilot is a veteran instructor himself, he may be able to help the student in some way. I am still grateful to a check pilot who, at his own insistence, rode with me several days in succession and finally pulled me through a phase which had been difficult for me.

At the school which is the target for most of the criticism, no student is ever dropped until at least three people, his instructor and two check pilots, are convinced that he will not achieve the standard of proficiency required of a military pilot. If he can succeed in convincing any one of the three that he even has possibilities, he is given another chance. Some students require a great deal more time and effort than others, but they are seldom, if ever, given up as long as they can show any definite progress as the result of instruction.

After all, instructors and check pilots are human. If you have ever seen the despair and defeat in the face of some kid who simply fails to "catch-on" to chandelles or lazy-eights, you know that there cannot be very many instructors who would get a kick out of telling him that his case is hopeless. The necessity of eliminating students is one of the most painful things about instructing. Most of the pleasure comes from getting students through. Human nature being what it is, it stands to reason that a great deal more time and money is wasted in trying to improve poor students than in discarding or frightening away good ones.

Even among those students who succeed in graduating there are wide differences of ability. The school demands only that the student reach a certain minimum standard before he is sent to a tactical squadron, where his real military training begins. Whether or not that standard is too high or too low can only be judged by the records the graduates make in actual service, and no one is better qualified to make that judgment than the directors of the school, who have themselves seen many years of tactical duty. Decisions on borderline cases can not always be right, and no doubt students have been eliminated who might eventually have become satisfactory military pilots after a considerable further expenditure of public funds and equipment. I do not know that this is true, but it is a reasonable assumption.

It is a proven fact, however, that a student who is particularly slow during one phase of instruction will almost invariably get even further behind on the next phase. It is well known that many borderline cases have been given the benefit of the doubt and allowed to finish. I know that this is true because I have flown with some of them, barely missed collisions with them in formation, and watched them tie up tactical maneuvers time after time. In active service these fellows form that small percentage which makes most of the mistakes! Would it be wise to increase their number?

It is true that almost anyone can learn to fly. It is not true that almost anyone who flies can become a <u>military</u> pilot. A great many people, however, seem to think so, and the wide acceptance of this fallacy is difficult to explain. A brief consideration of the facts will demonstrate that the idea is wholly erroneous and that it is still interfering with the public's understanding and acceptance of commercial and private flying.

Some day most people who consider themselves informed on aviation will come to understand that students are not "washed-out" of military flying schools because they can not learn to fly. Most of them can and a great many of them do learn to fly fairly well. They are washed out because they appear, for one reason or another, unable to reach the high standard of proficiency at certain kinds of flying which our air force requires.

That standard can be lowered, it is true. And there are forces seeking to lower it which are constantly active. But it is well known to veterans in the Service that when (and if) it is lowered the accident rate will rapidly increase, and efficiency and morale will go down. Recently the mere rumor that this standard had been or would be lowered in the interests of rapid expansion caused considerable apprehension among tactical units, and a temporary disturbance of morale which could be noted even among the enlisted mechanics.

In the early days of our participation in the World War the selective system for military pilots had not been worked out and for a long time poor pilots and even unfit pilots were subjected to the overwhelming nervous strain of aerial combat. The final check pilot in those days was Death. His minimum standard was not high, but it was inflexible, and he rode most often when the enemy was not even in sight.

At the present time the Royal Air Force, faced with a desperate situation, has sacrificed efficiency for rapid expansion to such an extent that their recent accident rate is appalling. The

Chinese are in a similar difficulty. Recently a pilot of my acquaintance quit his work with a Chinese flying school and came home in disgust. He explained the disappointing showing made by the Chinese airmen by the fact that their school, which was once modeled strictly after our own army school, had rapidly degenerated after the Japan-enforced departure of its American organizer and advisor and that its standards had been forced down to the point where anyone who could take a plane off, fly it around and land it safely was considered a military pilot. He said he and the other American instructors had tried to persuade the Chinese authorities to revive the system of checks and minimum standards for military flyers, particularly after they received a shipment of ten new Martin bombers. But the Chinese philosophically refused to discourage their pilots in this manner, and within a few months all the bombers had been damaged beyond repair.

Why is it so difficult to understand that military flying is very different from other kinds of flying? Military flying itself has developed so many technical details that even the military pilots have had to give up trying to be proficient at all branches of it. In pursuit aviation it is just as important to be able to fire a machine gun accurately as it is to fly well. One ability is practically worthless without the other. But the mere ability to shoot does not make a good combat pilot, nor does the mere ability to fly. It is foolish to remind ourselves that the ability to fly is not a great deal more difficult to acquire than the ability to drive a car and then to assume that every pilot is a potential military pilot. Are all automobile drivers good prospects for the mechanized cavalry?

Military pilots are supposed to be officers and to possess, both on the ground and in the air, those qualities for leadership, initiative and self-reliance expected of officers in any branch of the Service. It was never assumed that the mere ability to ride a horse made a man a cavalry officer, or that ability to handle a sailboat in a breeze made a man a sea captain. Any pilot who can take a plane off, find his way from one place to another and land it safely will get along well enough when left to his own devices, provided he has sense enough to stay out of very bad weather and refrain from attempting stunts or maneuvers beyond his ability and training which are, for his purposes, entirely useless.

A military pilot is not left to his own devices. Merely to fly around is for him just a pleasant pastime or an opportunity to rest between difficult tasks. Flying must for him be so easy and so automatic that he need not think about it. The ability to fly serves no military purpose in itself. A military pilot should be able subconsciously to force his plane to its maximum performance in any situation and never try to force it beyond that maximum. He must be able to do this while maneuvering with his eyes glued to a gun-sight, while he is blacked out in a pull-out or turn, or while all of his attention is required for watching or locating a possible enemy or target. He must be able to fly for hours so close to other planes that they could always collide in a second, and then be in top shape for difficult maneuvers or a tight formation landing at the end of the flight.

Most men can learn to fly safely under ordinary circumstances in about 25 hours Military schools give their pilots at least 150 before they are graduated. Is it supposed that they spend all of that time learning to fly? Many students know how to fly reasonably well to begin with, and quite often they are the ones who have the most trouble. I wish that some of the people who are so anxious to change our system of military instruction could ride with and try to improve a student who has been taught how to take-off in some easily-flown airplane, skid it around and land it smoothly. He thinks he can fly, and he can, for all practical purposes when there is plenty of time and plenty of room. But he can not fly for military purposes. It requires hours and hours of instruction, far more than would be required to start from scratch, merely to correct the slight habitual errors in technique which become very important when you consider that they would be extremely dangerous in even the most loosely-flown formation.

Many students, some of them with previous flying experience, get along fairly well as long as they have at least a small portion of the air or the landing field to themselves. But when other planes crowd them or block their intended landing path they become tense and anxious and consequently less sensitive to the movements of their own planes. This is a natural tendency and is to be expected in the beginning, but the military pilot must overcome it quickly and completely. The private or commercial pilot should be worried and disturbed by the presence of other planes so that he will give them plenty of room. But military traffic is usually heavy, so heavy that the pilot who cannot readily become accustomed to being crowded and "jostled" does not belong in it. The individualist who must work things out alone may be a great genius, and a great pilot, but he is not a military pilot.

There are other personal and mental characteristics which may be neither "good" nor "bad" under ordinary circumstances but which would seriously hinder a military pilot. For the protection both of the individual and of the Service these things should be discovered at the outset whenever they exist and

the flight surgeon is charged with this unpleasant responsibility. This fact accounts for the "psychological" and "hypercritical" portions of his examination which seems so unnecessary to many people who know a great deal less about psychology than the flight surgeon, and a great deal less about the peculiar requirements of military flying than those who prescribed the tests.

This applies to the physical requirements as well. Despite rumors to the contrary, these requirements have not greatly changed. It is possible that the recent sudden expansion may have caused a few persons to be given the benefit of the doubt concerning some minor disqualification but some of these will have to be eliminated later. Flight surgeons are not authorized to "lay aside material for a rainy day," or to "keep in touch" with disqualified candidates, or to try to soothe their disappointments. They are often overworked by the duties they are required to perform and they are required to conduct a thorough examination, not to engage in a "pleasant interview."

Flight surgeons are military men and they work with others who are, or desire to be, in the same category. Consequently they are supposed to dispense facts, not sympathy. Bad news is always unpopular and I suppose anyone who is failing to pass an examination finds it an ordeal. But the idea that flight surgeons often go out of their way to make enemies is a strange one. In the course of a few years I have "endured" more than twenty detailed examinations by various flight surgeons all over the country and I know of none who are "overbearing, domineering, cynical, insulting" or who could qualify under any one of that remarkable collection of adjectives. Whenever I had trouble with some portion of the examination I was unhappy, even miserable, and I wished that I could blame the surgeon. But after watching a great number of others go through the same thing I can understand that a strict, impersonal fairness to all is the only policy that can succeed. Few of my examiners, even when I knew them personally, ever wasted many words either of sympathy or encouragement. But those sensitive souls who object to brief and business-like methods should not contemplate entering the military service.

In any governmental activity it is only with the greatest difficulty that standards which rule out the majority can be maintained. Those who try to maintain such standards would frequently like to make exceptions and sometimes strong pressure is brought to bear upon them to force them to do so. But it is an obvious fact that the success of such efforts, either to reduce the requirements or to interfere with their application, would be detrimental and unfair. In the case of the physical requirements, "believe it or not" stories of rare individuals who have succeeded at certain kinds of flying prove nothing. Here again great damage is done to private aviation by the confusion, which often appears deliberate, between ordinary requirements and present-day military requirements. I might have enjoyed trying to follow Wiley Post as he found his way around the world with one eye and Harold Gatty, but I certainly would not have enjoyed flying on his blind side in a close formation.

The requirements for military flyers have been in force for more than twenty years and they are not more rigid today than they were in the beginning of their application. Certainly we should know by now that those requirements do not call for "a superior specimen - physically, mentally, and psychologically perfect." They demand only that the individual be normal in certain respects which would prove important to him in military work. Every one of those requirements is worked out for a normal, healthy individual, and not for a superior one!

Is that such a startling fact? Eyesight, for instance, must be 20/20, which is normal and not perfect. Many eyes are 20/15 and better, but that is superior vision and is not required. The same is true of everything else. And even with things which can be numerically measured, such as heart and pulse action and blood pressure, a very wide latitude is allowed.

The fact that certain peculiarities are very common does not change the fact that they are handicaps in military flying. Astigmatism is widespread, but it is not normal and its disadvantages will increase with age. And it is true that what might be called a "superior" sense of balance, resulting from a highly sensitive inner ear, is inevitably disqualifying because the individual possessing it reacts too strongly to slight changes of altitude and direction. It is a fact well known to medical science that few individuals are normal in every respect, and it is true that a large majority are not normal even in those respects which are important to military aviation. Many applicants who are accepted have various things "wrong" with them along lines which are not important. Fortunately for a great many, such things as poor digestions, falling hair and crooked noses do not greatly matter.

In his informative book Flying Vistas, Dr. Isaac H. Jones explains why the qualifications desirable in service pilots are not those which may be found in a majority of individuals.

"There is a great difference between the requirements of military aviation and of private and commercial aviation. The reasons for the difference in the requirements of a war pilot and those of a private or commercial pilot are sen-

sible. The military aviator . . . is selected to be better than his enemy. The student pilot or the private pilot of commercial aviation today is not planning to fight anybody. He is like the average youth who can play football or tennis. But the military aviator is like the member of the 'varsity' football team, or the tennis champion - one who can defeat his opponents."

This is not to imply, of course, that military pilots are the "best" pilots. There are too many kinds of flying today to permit any such simple and arbitrary comparisons, but even if there were such a thing as "pure flying ability" it is not to be supposed that those who possessed it would necessarily be attracted into the Services. Commercial aviation uses good men too, and private pilots may develop their skill as they choose. But the military pilot should certainly be better at the kind of work he is expected to do - work in which mere flying technique sometimes plays a small though important part.

Whenever any pilot, military or otherwise, gets the idea that he belongs to "a race apart" he naturally becomes the laughing stock of his own comrades. Military pilots are specialists, just as airline pilots, test pilots, racing pilots and stunt flyers are specialists. There are so many aspects of military flight that it is divided into several sub-specialties, each of which has come to require special training and talent, so that no one man can attain a high proficiency in all of them. And each Service pilot must therefore learn as he accumulates experience, that other flying specialists are far better in their fields than he would be, and in many cases better than he could ever hope to be.

But he is proud of his job, of its strict requirements and its difficulties, of its limitless opportunities for progress and improvement. He could certainly not be proud of it if it were true that almost any one who tries may become successful at it! It has been said that graduates of military flying schools are inclined to be proud of the fact that about half the students who enter those schools are unable to complete the course. Certainly! And why shouldn't they be? The college I attended has a reputation for graduating a similar percentage, and I am proud of it. The tough time I had getting through was worth the effort because I felt I was achieving something not supposed to be easy. The standing of any school, professional or otherwise, is based largely upon strict and uncompromising entrance and graduation requirements.

The distinction which a military flying school confers upon its successful graduates is a mere by-product of a larger purpose, and there is no necessity for maintaining artificial standards to create it. Such a school is run principally by officers who remain there only for a short portion of their careers and who are interested not so much in the school itself as in the efficiency of its graduates. At times when expansion is desired there is undoubtedly strong sentiments from some sources in favor of sacrificing quality for quantity production, even when there is no apparent necessity for such a policy and when it would be sure to cause trouble later.

Even if a crisis should arise there are methods of getting more pilots trained which would prove far less costly in the long run than "letting down the bars" and destroying the present high standard of efficiency which has been achieved by twenty years of selective effort. A formation in the air can never out-maneuver its own weakest members. And the finest equipment is wasted on pilots who are not capable of exploiting its every advantage. Furthermore, the success of an air force must depend upon the determined aggressiveness of the individual pilot, so it would seem foolish to fill an air force with men who were attracted into it by having everything made easier for them.

Just what kind of a man is a military pilot supposed to be, anyway? Suppose that a great many instructors were actually "tough guys," which they are not, being normal individuals with human sympathies who can well remember their own first experiences of a few years back (and which they would not be allowed to be, after all, since the schools have for years been trying to graduate as many good students as possible). Suppose it were actually true that most of the washouts were frightened by their instructors and that the number of graduates could be greatly increased just by making everything nice and easy for everybody. What kind of an air force would we have in a few years? Would fellows who were frightened out of their wits when they rode with a check pilot be expected to roam the skies in search of somebody to swap 50-calibre bullets with them?

As to the traces of a kind of military "hazing" which may still persist at the Army school, I must confess that I "submitted" to the "indignities" several years ago when they really amounted to something, and that the whole business was not a great deal more annoying than the personalties of the few individuals who sometimes tried to overdo it. I took little part in it as an upperclassman, but I could see the explanation and the reasons for its existence. And the hypothetical type of fellows who would say "Shucks, fellows...we came here to learn to fly and we haven't time for that sort of stuff" would perhaps need some kind of informal initiation most of all. A military flying school does not exist for the purpose of merely teaching fel-

lows to fly. They can learn that anywhere, at any crossroads airport, for a few dollars. A military school must change them into military officers and airmen. The change is a difficult one for some types of personality and it is often aided by a kind of discipline which may at the time seem almost ridiculous.

To an outsider, certain phases of military discipline and ceremony may look like childish horseplay. Maybe some of it is silly. War is silly too, but sometimes it may be necessary and certainly very real. I am afraid our author's serious-minded model student scarcely has the spirit which the nation expects in its defenders. I can imagine him calling an enemy pilot on the radio: "Shucks, fellow, I haven't time for this childish scrapping. I came up here to perfect my flying technique." Let's not kid ourselves about the purpose of an army. It exists not for show or parades or for the education of the public in flying or anything else. It should be concerned not with making itself attractive or with making converts into its own ranks, but to train itself for a difficult and terrible job. Satisfaction in its work should come largely from its ability to do a distasteful job well, better than anyone else, and get it over with. I can not conceive of a war in the air being won by men who have to be "made to feel at home" and "put at their ease" repeatedly just to get them through a flying school.

Flying is not "nine-tenths self-confidence." It would be more correct to say that flying is one-tenth self-confidence. Any student with nine times as much confidence as ability would be dangerous to everybody. The poorest students are often completely unconscious of their faults, and derive a grand and pathetic self-confidence from the very thing that makes them hopeless as military pilots - the fact that they are insensitive to their own errors. A timid, hesitant student who has enough persistence to feel his way through things will eventually learn and his ability will bring him confidence. And the students who learn most rapidly are those who are actually better than they think they are.

No instructor worthy of the name will deliberately do things that impede his students' progress. Each student is a different problem. One works better when he is praised and encouraged, another will "put out" only when stung by sharp criticism. If successful instructing were merely a matter of patting a student on the back and telling him how easy it all is, it would be a cinch. It is a proven fact that when all else has failed, a student's work will sometimes improve after he has been spoken to severely. Perhaps he likes his instructor and becomes more and more tense from trying not to displease him so that he actually relaxes after the inevitable happens and the instructor expresses his displeasure. Perhaps it is a relief for him to hear just how rotten his work is and get the matter over with.

The great temptation is for the instructor to accept slipshod work as "good enough." Instructing is a tiring and difficult job, so why should an instructor want to make it a disagreeable one as well by creating an atmosphere of hostility between himself and his student? It stands to reason that he is far more likely to become too friendly and agreeable and to let small errors slide instead of pointing them out repeatedly.

The course of least resistance is always in the direction of a gradual relaxing of high standards, of changing demands to fit the easiest source of supply rather than finding means to make the supply fit the demand, of sacrificing the future effectiveness of an organization for the immediate desires and ambitions of individuals. To those who have resisted this tendency in the past we owe much of the present internationally high rating of the American military pilot. Any selective system eliminations are inevitable, and the Service schools are repeatedly explaining that failure to complete their course is no reflection upon the character or the ability of the individual, but they can hardly be expected to assume the responsibility for satisfying the ambitions of every American youth.

Eliminations from the school may or may not prove to be unfortunate for the individual concerned, but anyone who develops an "inferiority complex that will hound him the rest of his life" merely because he failed to "make the team" in military flying is quite obviously the type who would not be successful at anything which required much persistence and courage. A great many successful men began their careers by flunking out of college, and flunking out of college is just as much a reflection upon the mentality of an individual as failing to make the heavy grade at flying school is a reflection upon his flying ability. Many washouts of the more stubborn type have become successful in other fields of aviation as a result of their efforts to prove themselves and others that they could learn to fly well.

Some twenty years have passed since the World War, and private and commercial aviation have come of age. They have outgrown war planes and war pilots, and they need no longer be dependent upon military schools, or upon military designs and specifications either in equipment or in pilots. In keeping with the progress of aviation as a whole, its specialties grow more and more diverse and each has its own purposes, its own methods, and its own requirements. Further progress is aided not when these differences are compromised and obscured, but when they are recognized and encouraged.

OBITUARIES

The death of Lieut. Colonel John G. Colgan, Air Corps, on November 19, 1938, at the Letterman General Hospital, San Francisco, Calif., removed from the ranks of the Air Corps an able officer and a veteran Army pilot, who was among the first of the American flyers to see service in France during the World War.

Colonel Colgan was born December 31, 1888, at Philadelphia, Pa. After graduating from high school, he attended both the Pennsylvania State College and the Michigan Agricultural College. Prior to his entry into the Military Service, he was employed as a civil engineer with the Pennsylvania Railroad for a year, and thereafter for one and one-half years he was engaged in scientific agriculture. He entered the military service as a Private in the Aviation Section, Signal Enlisted Reserve Corps, on December 30, 1916, and was subsequently promoted to Sergeant. After undergoing training at the Curtiss Flying School at Newport News, Va., he qualified as a Reserve Military Aviator on March 15, 1917; was commissioned a first lieutenant in the Aviation Section, Signal Officers' Reserve Corps, April 25, 1917, and was assigned to active duty with the 1st Aero Squadron at Columbus, New Mexico.

Ordered to duty overseas in August, 1917, Colonel Colgan completed training on the Nieuport airplane at Avord, France, and on October 15, 1917, was assigned to Amanty, France, on piloting duty. Later he was attached to the First Corps Flying School where, until March 30, 1918, he performed the duties of instructor in aerial observation, reconnaissance, aerial photography and artillery reglage. He was then once more assigned to the 1st Aero Squadron for duty at the front, with station at Ourche, France. He undertook the most hazardous missions and performed them successfully. In the Chateau Thierry, St. Mihiel and the Argonne offensives, he participated with his squadron as flight commander, and for his bravery and devotion to duty during these front lines operations he was promoted to Captain, October 29, 1918.

Upon his return to the United States, Colonel Colgan served for brief periods at Mitchel and Hazelhurst Fields, L.I., New York, and from January, 1920, to October, 1920, he served as flight commander with the 12th Observation Squadron along the Mexican Border, with station at Douglas, Arizona.

Transferred to Kelly Field, Texas, where he took advanced Pursuit training with the First Pursuit Group, he was, upon the completion of this training, assigned as a student at the Field Officers' School at Langley Field, Va. Following his graduation from this school, he was assigned to the Air Depot at Fairfield, Ohio, October 8, 1922, and served with the 88th Observation Squadron for a period of nearly five years in various capacities, such as Operations Officer, Commanding Officer and Engineering Officer. On August 12, 1927, he was assigned to duty as Commanding Officer of Lunken Field, Cincinnati, Ohio, where he served for a period of five years.

Transferred to Mitchel Field, N.Y., September 1, 1932, Colonel Colgan served at that station as Commanding Officer of the 5th Observation Squadron until January 18, 1934. His next assignment was in the Philippines, where he served as Purchasing and Contracting Officer at the Philippine Air Depot until July 2, 1935. Ill health, from which he did not subsequently fully recover, necessitated his relief from foreign service, and after a period of nearly three months at the Letterman General Hospital, he was, on October 6, 1935, assigned to station at March Field, Calif., where he performed duty with the 17th Attack Group as Commanding Officer, then as Commanding Officer of the 95th Attack Squadron and as Group Exchange Officer and Group Auditor with Headquarters, 17th Attack Group.

Colonel Colgan was promoted to the grade of Major on July 1, 1933, and to Lieut. Colonel (temporary) on August 26, 1936.

On November 13th, at approximately 7:30 p.m., two well-liked officers of the 27th Division Aviation, New York National Guard, Captain Ray Worral Krout and 1st Lieut. Lansing Colton Holden, met their death in an airplane accident near Nashville, Tenn. Funeral services for Captain Krout were held at Paterson, N.J., and for Lieut. Holden at St. Bartholomew's Chapel, New York City. The passing of these two officers was a great loss to the 102nd Observation Squadron.

Captain Krout was born in Newark, N.J., July 23, 1895. He attended elementary and high schools in Newark, N.J., entering Columbia University in 1915. In August, 1917, he entered the Curtiss Airplane Company at Buffalo, N.Y., as Civilian Inspector for the Aviation Section, Signal Corps, inspecting airplanes being manufactured by that company for the U.S. Governmen

In September, 1917, he enlisted in the Aviation Section, Signal Corps, as a Flying Cadet, and was assigned to the School of Military Aeronautics, Princeton University, as a student of military aviation. On February 11, 1918, he was commissioned a second lieutenant, and he remained in the service throughout the World War overseas with the 135th Aero Squadron. He was

orably discharged from the service on 20, 1919.

On April 4, 1929, Captain Krout applied and was commissioned a second lieutenant in the 27th Division Aviation, New York National Guard. He was placed in command of the 102nd Photo Section. On July 26, 1930, he was promoted to first lieutenant. He was later reassigned to the 102nd Observation Squadron as Armament Officer. He was promoted to Captain, June 25, 1938.

Lieut. Holden was born in New York City, October 8, 1896. He attended elementary and high school in his native city and then entered Princeton University. At the age of 21, and while a student at Princeton, he enlisted in the Aviation Section, Signal Corps, as a Flying Cadet, June 28, 1917. He was commissioned a 1st Lieutenant, Aviation Section, Signal Corps, March 28, 1918, and was honorably discharged from the service on March 31, 1919. During this period, Lieut. Holden spent approximately 18 months overseas with the service. He was the flight commander of the 95th Aero Squadron, and was credited with bringing down eight German airplanes, thereby gaining the unofficial title of "Ace." For his distinguished service overseas, he was awarded the Distinguished Service Cross, with Oak Leaf; the Legion of Honor Medal, and the Croix de Guerre with palm.

Immediately following his honorable discharge from the military service, Lieut. Holden volunteered his services with the Spanish army to subdue the Riffs in Spanish Morocco. He was one of the first two recipients of the Medal of the Moroccan Peace for unusual service in this war.

Having been discharged from the Spanish army, he returned to the United States and reentered Princeton University. Later he entered Harvard University and he received his Architect degree in 1924. On February 5, 1926, he enlisted in the 101st Cavalry, Troop "A" (Squadron "A") New York National Guard, serving as Private and Corporal. He was discharged on January 19, 1929. On June 27, 1929, Lieut. Holden applied for and received a commission as second lieutenant in the Air Corps, National Guard, and was assigned to the 102nd Observation Squadron as Assistant Operations Officer. He was promoted to first lieutenant on June 26, 1930.

On September 12, 1933, having obtained a civil assignment of highly technical architectural nature with R.K.O. Studios in California, he was transferred to the National Guard Reserve. This civil assignment kept him away from the New York National Guard for a period of about five years.

On August 5, 1938, Lieut. Holden was recommissioned in the 102nd Observation Squadron, 27th Division Aviation, as first lieutenant, and assigned to duty as Assistant Armament Officer. He was very active in this capacity, which was in addition to his duty as an Airplane Pilot.

In addition to the decorations previously enumerated, Lieut. Holden held the New York State Service Cross.

The Air Corps extends its deep sympathy to the bereaved families of these deceased officers.

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FORMATION FLYING IN PANAMA CANAL ZONE

The 24th and 29th Pursuit Squadrons, Albrook Field, Panama Canal Zone, have recently developed and are now in the process of perfecting a combined close order parade formation to be used on the occasions of Wing Reviews and similar ceremonies. The show consists of flying an oval track, any part of which would be visible from the reviewing stand, with the squadrons forming in varied drill formations, line, echelon, vee and mass, on each successive lap. Purely show formations have been little used by the Pursuit organizations in Panama in recent years, the normal working formation being tightened up for the purposes of aerial review.

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GENERAL ARNOLD VISITS HAMILTON FIELD

Major General Henry H. Arnold, Chief of the Air Corps, arrived by plane at Hamilton Field, Calif., on Wednesday, December 7th, for the purpose of making an inspection of that Air Base and the Air Depot at Sacramento, Calif. He called on Major General Bowley, Commanding General of the Ninth Corps Area, and Colonel Jacob E. Fickel, Air Officer of the 9th Corps Area.

According to the Hamilton Field Correspondent, a "Dutch Treat" dinner was served at the Officers' Club at that Field on Thursday evening, December 8th, with General Arnold as the honored guest. The informal dinner and get-together afforded officers and their ladies an opportunity to meet General Arnold.

General Arnold returned to Washington from the West Coast on December 12th.

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BOMBING PRACTICE FOR 74TH ATTACK SQ'DN.

For the past few weeks, the 74th Attack Squadron, Albrook Field, Panama Canal Zone, has been engaged in live bombing and gunnery practice, utilizing aluminum slicks (bronze aluminum powder) dropped on the surface of Panama Bay, for targets.

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